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ABSTRACT

A survey project was conducted from July 1977 through June 1978 to: (1) determine the occupational interests and academic plans of seventh, eighth, tenth, and eleventh grade Bergen County public and Catholic school students and their parents; (2) determine the perception of Bergen County public school superintendents regarding the status, priorities, and needs of their local career development and vocational/technical programs; and (3) correlate survey results with state and federal statistics and projections on the 87 vocational areas contained in the survey questionnaires. The study report first presents a description of the project objectives and a discussion of the literature on career development and vocational choice used in the development of the survey instruments. This is followed by a description of the survey instruments, target population and samples, sampling methods and sizes, and data analysis and estimation procedures. The report then presents findings and interpretations for each of the questions on the questionnaires and concludes with a discussion of the difficulties encountered in correlating government vocational information with the survey results and a list of the 30 most popular vocational programs chosen by the students and their parents. The appendix includes 25 data tables and sample survey instruments. (JP)

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ED178107

FINAL REPORT

OF

SURVEY OF OCCUPATIONAL INTERESTS OF BERGEN COUNTY STUDENTS AND THEIR PARENTS AND PERCEPTIONS OF SCHOOL SUPERINTENDENTS REGARDING THEIR CAREER DEVELOPMENT AND VOCATIONAL PROGRAMS AND SERVICES

1977-1978

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ABSTRACT

PROJECT TITLE Survey Of Occupational Interests of Bergen County Seventh, Eighth, Tenth, and Eleventh Grade Students And Their Parents And Perceptions Of School Superintendents Regarding Their Career Development And Vocational Programs And Services

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Abstract

In a period of rapid social, economic and technological change, it is extremely important that planning, coordination, and implementation of local programs of vocational education and guidance be based on adequate data and information.

This study of 1) the occupational interests and choices, decision-making readiness, career awareness, and academic plans of seventh, eighth, tenth, eleventh grade Bergen County public and Catholic school students and their parents, and 2) the perceptions of public school superintendents regarding the status, priorities, and needs of their local career development and vocational technical programs and services was planned as a cooperative project of the Bergen County Career Education Coordinating Council and Bergen Community College, a constituent member of the Council. The study findings will be used by the Council for its planning and coordination efforts, including the mandated implementation of its County plan. Since the computerized results of the student and parent surveys will be further "broken out" by individual school districts, these should assist local school districts plan, implement and evaluate the revelance and effectiveness of their career development and vocational-technical programs. The availability of objective data may also facilitate the preparation, justification, and review of local district request for funds and other support from public, county, state, and federal sources. The information regarding career choices and academic plans should also materially assist the postsecondary institutions in their program planning, including the implementation of needed new occupational programs.

The growth and changes in technology have generated a new spectrum of occupations requiring specialized educational preparation at the secondary and post-secondary levels. In recognition that many young persons may not be aware of these occupational alternatives, specially prepared information was distributed to the schools prior to the conduct of the surveys. Counselors and guidance personnel were involved prior to this distribution at an all day workshop.

All new career materials and questionnaires were designed to stimulate career exploration and suggest new options for both sexes, including energy related occupations. Comparisons were made with the findings of a rather similar survey of students conducted five years ago to determine changes in occupational interests generally, as well as specifically reviewing the data for evidence of progress in elimination of sex sterotyping.

The information and data obtained regarding student and parent choices and plans, and from superintendents regarding the status of and priorities for local programs were correlated with manpower demand and supply data and other related information available from federal and state sources. Recommendations were made regarding the need for additional manpower and employment studies and other related information.

The final report was distributed to concerned local, county, and state agencies and to the participating school districts.

ACKNOWLEDGEMENTS

The planning and carrying out of this project would not have been possible without the understanding, support, and assistance of many individuals. The cooperation and assistance of the superintendents, principals, guidance personnel, and classroom teachers were critically necessary for the conduct of this massive survey of students and parents. Though we do not list their names individually, we are truly indebted to them.

We gratefully acknowledge the sponsorship and support of the Bergen County Career Education Coordinating Council. We hope the results of this study matches their original anticipation of the possible contribution the project might make to career education planning in Bergen County. We are particularly indebted to these individual Council members for their assistance in planning this project, reviewing the research instruments, and generally facilitating our work: Dr. S. David Adler, Bergen County Superintendent of Schools; Mr. Eli Kane, Chairman of the Council and Superintendent of Schools, Lyndhurst; Mr. Paul Dentz, Director, Student Personnel Services, Indian Hills High School and President of the Bergen County Guidance Association; Mr. David Kimmel, Director of Fair Lawn Community School and President Bergen County Community, Adult and Continuing Education Association; Dr. Neal B. Perkins, Superintendent, Bergen County Vocational/Technical Schools; Dr. George Charen, Dean of Instructional Services, Bergen Community College. Mr. Kenneth DeNoyer, Assistant Superintendent, Bergen County Vocational/Technical Schools also provided valuable guidance. Mr. Morton Ruden, Executive Director of the Council, was a constant source of warm encouragement and thoughtful suggestions. He helped to expedite the work of the project in countless practical ways.

Father Thomas McDade, Assistant Secondary School Superintendent and Sister Ann McDonald, Assistant Superintendent Elementary Schools, Archdiocese of Newark, were extremely helpful in opening up channels of communication and securing the excellent cooperation of the Catholic elementary and secondary schools of Bergen County.

Professor Alvin Jackson and Dr. Jack Crespin of the Bergen Community College Business Department served the project ably as manpower specialists, and we are indebted to them for their assistance.

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We wish to express our deep appreciation of the efforts of Mrs. Betty Quinn who, as project secretary/technical assistant, typed the entire manuscript and assumed many other arduous tasks as well.

We gratefully acknowledge the splendid cooperation afforded by Dr. Sidney Silverman, President Emeritus, and Dr. Alban E. Reid, President, Bergen Community College. Among the staff members of the College, we also wish to express our appreciation for the help provided by Joseph Serra, Dean of Administrative Services; Mr. John Sievers, Director of Data Processing; Mr. John Anthony, Systems Analyst, and Mr. Donald Widmayer, Director of Purchasing and College Services.

OBJECTIVES OF THE BERGEN COUNTY CAREER EDUCATION COORDINATING COUNCIL

"The accepted purpose of this Council shall be to continuously review the occupational programs in education being offered in the County ... the local occupational needs in terms of additional programs considered necessary ... provide a total coordinated plan for vocational-technical education on the immediate and long range basis."

COUNCIL MEMBERSHIP

Dr. S. David Adler	Bergen County Superintendent of Schools
Eli A. Kane, Chairman	Superintendent of Schools, Lyndhurst (Bergen County Department of Superintendents)
Orlando F. Campesi	Bergen County Supervisor, Child Study
Dr. George Charen	Dean of Instructional Services, Bergen Community College
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David Kimmel	Director of Fair Lawn Community School (Bergen County Community, Adult and Continuing Education Association)
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John P. Lyle	Executive Director (Bergen County Community Action Program, Inc.)
Irene Mercoun (Mrs. Wm.)	Member of Carlstadt Board of Education (Bergen County School Boards Association)
Dr. Neal B. Perkins	Superintendent of Bergen County Vocational/Technical Schools
August A. Perticone	Waldwick Assistant Superintendent of Schools (Bergen County Department of Superintendents)
Morton Ruden	Executive Director (Bergen County Career Education Coordinator)
Dr. Stanley J. Sussman	Principal of Mount Pleasant and Windsor Schools (Bergen County Elementary School Principals Association)
Brother Lawrence Welle, F.S.C.	Representative of Bergen County Non-Profit Private Schools

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

The report that follows presents an in-depth survey of the occupational interests and educational plans of Bergen County public and Catholic school 7th, 8th, 10th and 11th grade students and their parents, conducted during the Spring of 1978. Also conducted was a survey of the perceptions of public school superintendents regarding the status, priorities, and needs of their local career development and vocational technical programs and services. Information and data obtained were correlated with available manpower data from state and federal sources. Recommendations were made regarding the need for additional manpower and employment studies.

The project, directed by Dr. Irvin Hochman, was planned as a cooperative project of the Bergen County Career Education Coordinating Council and Bergen Community College, a constituent member.

A. Methods and Procedures

Target Population and Samples

All public and Catholic schools with students enrolled in the 7th, 8th, 10th and 11th grades constituted the target population.

Eligible school participation rates were 96.6% (Public) and 89.9% (Catholic). 43,180 student questionnaires were collected, representing 75.4% of the total 57,278 participating school enrollments. A random sample of 8,637 questionnaires were selected for computer processing and analysis.

27,023 parents returned their questionnaires - 12,770 males and 14,253 females - a non random 20%-25% sample of the estimated target parent population.

60 of 73 superintendents completed questionnaires - a 82.2% response rate.

B. Data Analysis and Estimation Procedures

The percentage of students in the sample checking alternative answers to each of the survey questions was used for projecting the numbers these constituted of the total target populations and various subpopulations. Analyses of the parental questionnaire responses by sex and type of school (public or Catholic) were also conducted. A wide range of computer printouts reflecting a number of related student and parent variables are also available.

C. Results of Survey of Students

1. Student Characteristics

a. Age - ages ranged from 12 to 18 years; the median age was 14.

b. Sex - the distribution was 50.4% male and 49.6% female.

2. Grade Placement

The distribution of the respondent sample by grade was 24.1% Seventh, 26.5% eighth, 25.1% tenth, and 23.5% eleventh.

3. Enrollment In and Interest In Enrollment In A Satellite Vocational Center

Though 2% of the respondent sample were presently enrolled, over 11% or nearly 7,000 students expressed an interest.

4. High School Graduation Plans

99.4% planned to graduate - a high level of expectancy held by students through all grades, sexes, public and Catholic schools.

5. Plans To Work Part-Time After High School Graduation

About 45% anticipated part-time employment, with an additional 35% indicating that they were not sure.

6. Plans To Work Full-Time After High School Graduation

   In the 4 grades, the percentages anticipating full-time employment ranged between 15.9% and 18.6%.

7. Interest In Continuing Education After High School

   Slightly over three fourths of the total were interested in continuing their education. The "not sure" group accounted for an additional 17%. Only about 7% were not interested.

8. Helpfulness Of Schools In Informing Students About New Career Opportunities, Vocational Technical Programs Offered By Bergen County Schools And Colleges, And Attitudes And Work Habits

   About two-thirds indicated that their schools had been of some help in informing them about new career opportunities and about various vocational-technical programs offered by Bergen County schools and colleges. About 80% indicated that schools had provided them with some help in informing them about the attitudes and work habits needed for obtaining and holding a job.

9. Students' Interest In Enrolling In A Day Or Evening Program At Various Institutions After High School Graduation

   a. Bergen County Vocational-Technical Adult Schools

      The percentages interested increased from 4.6% (est.662) in the 7th to 7.1% (est.1,096) in the 11th grades.

   b. Bergen Community College, Liberal Arts and Sciences Transfer Programs

      Overall, about 6.9% of the total student sample expressed interest with the percentages fluctuating among the grade levels at 8.9% (est.1,281) of the 7th, 5.7% (est.839) of the 8th, 6.3% (est.1,004) of the 10th, and 6.5% (est. 1,003) of the 11th graders.

c. Bergen Community College, Career Vocational Programs

Overall, 8.9% of the total sample and 12.0% (est.1,728) of the 7th, 8.3% (est.1,221) of the 8th, 6.8% (est.1,084) of the 10th, and 8.6% (est.1,328) of the 11th graders expressed interest. The 1972 survey had indicated a sharp upturn in the number of twelfth graders expressing interest. Thus, the present eleventh grade level may underestimate the eventual numbers enrolling in Bergen Community College.

d. At Another 2-Year College Transfer and Career Vocational Programs

Overall, 6.1% of the total respondent sample expressed an interest in a transfer and 6.5% in a career vocational program.

e. At A 4-Year College/University

59.9% of the students expressed interest in enrolling in 4-year institutions. This high level of interest was consistent among the four grade levels surveyed.

f. At An Adult Community Continuing Education School

Overall, about 4% of the total sample expressed an interest with the level of interest decreasing from 5.4% (est.777) in the 7th grades to 2.8% (est.432) in the 11th grades.

10. At A Private Business/Technical School

Nearly 12% of the total sample were interested, with the level of interest rising from 8.7% (est.1,253) in the 8th grades to 13.7% (est.2,114) in the 11th grades. This may reflect a growing student awareness of the need to acquire marketable skills.

11. Major Fields Or Subjects Offered In 2-Year College Liberal Arts And Science Programs Or In 4-Year College/University In Which Students Were Interested

Data are provided regarding the students' first and second choices among 24 listed subject areas. Though the differences among the sexes were generally not sharp, students' selections tended to be along the more traditional sex oriented lines.

12. Interests Of Students In Vocational-Technical Programs And Courses Leading To Associate Degrees, Certificates And Other Awards

Students indicated their first and second choices among 87 vocational-technical programs. Approximately, 30% of all public, male and female and 7th, 8th, 10th, and 11th grade students expressed interest. Among the Catholic students, the percentage dropped to about 24%.

In rank order the male top 10 first choices included: 1) automobile and diesel mechanic; 2) business management; 3) pilot training; 4) accounting and bookkeeping; 5) architectural building technology; 6) automobile body repair; 7) electronic technology; 8) police science (law enforcement); 9) carpentry, and 10) commercial art. The percentages of the total male respondent sample selecting these occupations ranged from 2.2% (est.674) for commercial art to 4.9% (est.1,500) automobile and diesel mechanic.

The female top 10 first choices included: 1) secretarial science; 2) beauty culture and cosmetology; 3) commercial art; 4) theatre art; 5) nursing, R.N.; 6) interior design; 7) child care/pre-elementary education; 8) accounting and bookkeeping; 9) photography; and 10) communications and broadcasting. The choices ranged from 2.0% (est.598) for communications and broadcasting to 5.5% (est.1,643 for secretarial science.

From the 7th to the 11th grade, there was some shifting in the relative positions of the students' choices. However, 5 of the top 10 in the 7th grade list consistently appeared also among the top 10 occupations chosen by the 8th, 10th and 11th grade students. These included secretarial science, nursing, photography, commercial art, and automobile and diesel mechanic.

Only accounting/bookkeeping and commercial art appeared on both male and female top lists.

Seven of these top 10 vocational-technical programs also had been chosen by students in the 1972 study.

D. Results Of Survey Of Parents

The results of this survey can be regarded as useful, but incomplete assessment of the academic and occupational interests and plans of an important segment of the concerned adult population of Bergen County.

1. Previous Educational Training Of Parents

2,317 (8.6%) of the total of 27,023 respondent parents had been previously enrolled in a high school vocational program; 1,307 (4.8%) in a public vocational-technical high school; 3,997 (14.8) in an adult community continuing education school; 3,827 (14.2%) in a private business/technical/vocational school; 1,874 (6.9%) in a junior college; 8,101 (30.0%) in a 4-year college; and 3,980 (14.7%) in a graduate school.

A significantly greater percentage of the fathers than the mothers were or had been enrolled in a vocational-technical high school, a private/business/technical/vocational school, a four year college, or a graduate school. Greater percentages of the mothers were or had been enrolled in adult community continuing education schools and junior colleges.

2. Interests Of Parents In Enrolling In Some Type Of Liberal Arts And Sciences Degree Program At Either A 2-Year College Or At A 4-Year College/University

4,692 (17.3%) of the 27,023 parents indicated specific liberal arts and sciences programs or courses in which they were interested. Interest was highest in business and management and medical/health professions. Among males, the area of greatest interest was business and management; among females, it was in health/medical professions, fine and applied arts and psychology.

3. Interests Of Parents In Enrolling In Educational Programs That Award Degrees Or Certificates And Which Prepare For New Occupations Or Upgrading In Present Job

Detailed data were provided regarding the first and second choices among 87 programs. 5,980 (22.1%) indicated first and 4,691 (17.4%) indicated second choices.

Business management (1.8% - 485), accounting and bookkeeping (1.6% - 431), real estate and insurance (1.0% - 268), business administration (0.9% - 242), secretarial science (0.9% - 235), business computer programming (0.8% - 206), interior design (0.7% - 186), and banking and finance (0.5% - 135), ranked among the top 10 first choices.

Male parents, in general, tended to select the traditionally "male" programs and female parents the traditionally "female" programs. The relatively low rate of selection of both males and females of the new and emerging career areas remains an area of concern that should be addressed in the coming period. These new areas offer promise of substantial new career opportunities for many individuals.

4. Choices Of Educational Institutions Of Parents Who Indicated An Interest In Educational Programs Or Courses

The choices of the total respondent parents were: Bergen County Vocational-Technical Adult Schools (evenings) 6.8% (1,831); Adult Community Continuing Education Schools 5.7% (1,533); Bergen Community College liberal arts transfer programs 3.9% (1,045); Bergen Community College career vocational programs 6.7% (1,804); some other 2-year college 1.1% (291); a four year college/university 4.4% (1,178); a private business/technical vocational school 1.5% (402); and some other type of school 2.3% (615).

E. SURVEY OF BERGEN COUNTY CHIEF SCHOOL ADMINISTRATORS' PERCEPTIONS OF THE STATUS AND PRIORITIES OF CAREER/VOCATIONAL PROGRAMS AND SERVICES IN THEIR DISTRICTS

1. Type of Schools In Districts

Among the 60 respondent school districts, 55 (91.7%) had at least one elementary school, 35 (58.3%) a middle or junior high school, 35 (58.3%) a high school, and 16 (26.7%) an adult community continuing education school.

2. Grade Ranges In Districts

Grade ranges reported by the districts were: 1 (1.7%) K-6; 24 (40.0%) K-8; 15 (25.0%) K-12; 1 (1.7%) 7-12; 3 (5.0%) 9-12: 15 (25.0%) K-adult; and 1 (1.7%) 9-adult.

3. Total Student Enrollments In The Districts, As Of September, 1977

Student enrollments in the 60 districts ranged from 6 (10.0%) with less than 500 pupils to 2 (3.3%) with 6,000 or more students.

4. Average Annual Cost Per Pupil - 1976-77 School Year

Expenditures ranged between $1300 - $1599 (13.3%) and $2200 or more (13.3%). The median annual expenditure reported was located in the $1900 - $2100 bracket.

5. Chief School Administrators' Ratings Of The Status Of Major Career/Vocational Programs And Services Available To Their Districts Students (Question 8-87)

The respondent chief school administrators checked whether various career/vocational programs and services were: 1) not presently available to their students; 2) below their districts' expectations; 3) meeting their districts' expectations; 4) not applicable to their districts' grade range; (or that) 5) they had no basis for an opinion.

For each listed program or service, the administrators were asked to indicate whether additional technical assistance from the N.J. Department of Education would be desirable.

In order to facilitate the systematic gathering of information, the administrators had been provided with a conceptual framework based on the New Jersey Department of Education, Division of Vocational Education's "Career Development Model - A flexible Continuum of Vocational-Technical Programs and Services."

a. Programs Offered In Pre-School And Elementary Schools

In three of the four programs listed nearly two thirds of the applicable districts reported that these programs were not presently available to their students. Of the schools with such programs, the numbers of responses reporting "meeting district expectations" exceeded "below district expectations" by a factor of 2 or 3 times.

b. Programs Offered In Middle And Junior High Schools

The percentages of districts indicating that individual programs among the 8 listed were not presently available to their students ranged from 12.0% for home economics and consumer education to 56.0% for agriculture/agribusiness/natural resources education.

In seven of the eight programs, "meeting district expectations" responses exceed "below district expectations" responses.

c. Programs Offered In High Schools

For 7 of the 16 listed programs, over a fourth of the districts indicated non availability. However, in 15 of the 16 programs, the number of "meeting district expectations" responses exceeded "below district expectations" responses.

d. Programs Offered In Adult Community Continuing Education Schools

The percentages indicating that individual programs among the 12 listed were not presently available to their students ranged from 0.0% for business education to 68.8% for agriculture, etc.

"Meeting district expectations" responses exceeded "below district expectations" by factors ranging from 1.3 times for cooperative vocational education to "infinity" for agriculture/etc. (12.5/0.0).

e. Services Offered In Elementary, Middle, Junior High, High Schools And Adult Schools

In 3 of 6 services slightly over half of the districts reported that these services were not presently available to their students.

"Meeting district expectations" responses exceeded "below district expectations" responses by factors ranging from 1.4 times (career resource centers) to 5.3 times for special services for special needs students.

f. Special Needs Vocational/Career Education Programs For The Handicapped And Disadvantaged

The division of Vocational Education's Career Model encompasses a range of programs and services designed to meet the vocational/career education needs of handicapped and disadvantaged pupils.

1. Handicapped-30.0% indicated that these programs and services were not presently available
2. Disadvantaged - 35.0% indicated that programs and services for the disadvantaged students were not presently available.

"Meeting district expectations" exceeded "below district expectations" responses by a factor of 2.6 times.

6. Major Reasons Why Chief Administrators Checked Certain Career/ Vocational Services Were Not Presently Available to District Students or Below District Expectations

Administrators gave the following reasons: no funds to employ qualified personnel (50.0%); low priority in the district (50.0%); lack of suitable space (45.0%); lack of funds for equipment (33.3%); question not applicable to the district (33.3%); more technical assistance needed from New Jersey Department of Education (20.0%); unable to integrate with other curricular requirements and activities (13.3%); and other (3.3%). The fact that 33.3% of the chief administrators checked that the question was not applicable to their district is rather surprising.

7. Career/Vocational Technical Programs or Services Implemented in Districts during Past Three Years (1975-1978)

In the 60 districts, 68.3% implemented a total of 71 individual programs and services. These did not include any implemented at Satellite Vocational Centers or Bergen County Vocational Technical High School.

8. Career/Vocational Programs or Services Planned for Possible Implementation in Next Three Years

Chief administrators were asked to list any new programs or services that they seriously were planning to implement in their districts in the next three years. Of the 60 respondents 24 (41.7%) listed about 40 programs and services. The size and scope of the listing suggests that the planning and implementation of new career/vocational programs and services in the districts will be at a relatively modest level in the next three years.

9. Career/Vocational Programs Or Services With High Priority For Implementation In Various Settings

The chief administrators were requested to list any new career/vocational programs or services that they believed should have high priority in either 1) shared district programs and services, 2) satellite vocational centers, 3) Bergen County Vocational-Technical High School, Adult Community Continuing Education Schools, 5) Bergen Community College, and 6) other designated settings. Twenty-four (40%) superintendents suggested at least one program or service.

10. Superintendents' Perceptions Of The Status Of Their Districts Career/Vocational Programs And Services

The superintendents were requested to rate three major aspects of their career/vocational programs - i.e., 1) goals and objectives and planning, 2) processes, and 3) resources. Table 24 (Appendix) summarizes the responses of the superintendents. Their responses to each item deserves careful individual study. Generally, "meeting district expectations" responses exceeded "below district expectations" responses by factors ranging from 0.0 to 4.1 times. However, in the case of adequacy of funds for career vocational education, and for related capital outlay, the balance shifted to the "below district expectations."

F. Employment Supply And Demand

Table 25 (Appendix) reflects the results of a review and analysis of available national, state, and county employment data. In general this table provides: 1) scaled ratings ranging from A to E of the general national employment outlook in 1985, 2) the actual number of individuals employed nationally in 1974 and the projected employment in various occupations in 1985, 3) the percentage changes in these data from 1974 to 1985, 4) the projected number of employees in 1980 in New Jersey and in Bergen County, and 5) projected total average number of job openings for each year 1975-80. In addition, in the last 2 columns, the corresponding numbers of respondent 11th grade students and parents interested in the various occupational programs are provided.

The list of occupations included in this table reflects an attempt to match the federal and state data with the 87 vocational-technical programs contained in the survey questionnaires, an effort that did not prove to be wholly successful. The continued need for systematic and comprehensive employment information at all levels was stressed and the current efforts of the New Jersey State Departments of Education and Higher Education, and Labor and Industry in this direction were commended.

RECOMMENDATIONS AND CONCLUSIONS

The completion of this project marks only the first step in what must be an ongoing continuous participative planning process of all state and local agencies and of educational institutions. A wealth of data has been collected and will be made available freely for use at all levels. These data will take on a more concrete meaning when they are used in conjunction with systematic and comprehensive planning efforts. Of course, when used, these data should be interpreted with caution. Even with a large sampling of the various target populations there is the possibility of errors, both random and nonrandom. These limitations must be carefully balanced against the need for reasonably reliable information.

It is anticipated that the data obtained will be of concrete value to the Bergen County Career Education Coordinating Council for its planning and coordination efforts. Since the computerized results of the student and parent surveys will be further broken out by individual school districts, these should be useful as the local school districts plan, implement and evaluate the relevance and effectiveness of their programs and services. The information regarding career choices and academic plans should also materially assist the postsecondary institutions in their program planning, including the implementation of needed new occupational programs.

The growth and changes in technology have generated a new spectrum of occupations requiring specialized educational preparation at the secondary and postsecondary level. The steps taken in this project to increase the awareness of students (and possibly guidance personnel) of these occupational alternatives represent only a very small step in what must be a more comprehensive and systematic process of information dissemination.

All the new career materials distributed and the student/parent survey questionnaires were designed to stimulate career exploration and suggest new options for both sexes. The data obtained suggest some progress, but not much has taken place since the similar 1972 study was conducted. Here, too, continuous and more intensive efforts will be required to assure further progress.

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TEXT

I INTRODUCTION

A. The Problem

In a period of rapid social, economic and technological change, it is extremely important that planning, coordination, and implementation of programs of vocational education and guidance be based on adequate data and information. Continuous review and evaluation of local programs are necessary to determine what new programs are needed, what programs should be continued, what improvements are needed, and what programs should be phased out. The findings of this research study should contribute a substantial and timely body of such needed data and information.

The present study of 1) the occupational interests and choices, decision-making readiness, career awareness, and acedemic plans of seventh, eighth, tenth, and eleventh grade Bergen County public and non-public school students and their parents, and 2) the perceptions of district school superintendents regarding the status, priorities, and needs of the local career/vocational programs and services was planned as a cooperative project of the Bergen County Career Education Coordinating Council and Bergen Community College, a constituent member of the Council.

The information and data obtained from students, parents, and from superintendents were correlated with the latest manpower demand and supply data and other associated information available from federal, state, and local sources.

In recognition that many young persons (and adults) may not be aware of new spectrum of occupations requiring educational preparation at the adult and postsecondary levels resulting from technological growth and change, timely information was disseminated to the schools prior to the conduct of the survey of students and their parents.[1] The Bergen County Guidance Counselors Association and the Bergen County Guidance Directors, and the individual school guidance offices contributed significantly to these dissemination efforts.

The study finding should be of value to the Council for its planning and coordination efforts, including the mandated implementation of its formal County Plan. The computerized results of the study, "broken out" by individual school districts, should assist local school districts plan, conduct, and evaluate their career/vocational programs and services. The availability of this objective data should also facilitate the preparation, justification, and review of local district requests for funds and other support from local, county, state, and federal sources.

1/ Copies of these materials may be obtained from the Program Director on request.

II OBJECTIVES OF THE STUDY

The objectives of this study were:

A. To survey all 7th, 8th, 10th, and 11th grade Bergen County public and Catholic school students in order to obtain current and cross-relatable information regarding:

1) personal characteristics - age, sex, present grade school;

2) interest in enrolling in a Satellite Vocational Center and/or Bergen County Vocational Technical High School;

3) expectancies regarding high school graduation;

4) plans for full-time and/or part-time employment after leaving high school;

5) interest in enrolling in a day or evening program after high school graduation at Bergen County Vocational-Technical Schools, Bergen Community College, some other junior or senior college/university, an adult community continuing education school, or a private business/technical school;

6) plans to enter liberal arts, and science program at Bergen Community College or at some other colleges or universities and their probable field of study;

7) their interests in enrolling in technological or occupational curriculums leading to associate degrees, certificates, or other awards below the bachelor's degree;

8) their perceptions of the extent their schools had been helpful in informing them regarding new career opportunities, the vocational/technical programs offered by Bergen County schools and colleges, and the attitudes and work habits needed for obtaining and holding a job.

B. To survey all the parents of the 7th, 8th, 10th, and 11th grade Bergen County public and Catholic school students in order to obtain current and cross-relatable information regarding their:

1) previous and/or present enrollment in academic or occupational-related training programs in a high school vocational program, public vocational-technical high school, adult community continuing educational school, private business/technical/vocational school, junior college, (community or private), four year college, graduate school, or other (military, apprentice training, etc.)

2) interest in enrolling in some type of degree program or in taking courses at either a 2-year college (associate degree) or at a four year college/university (bachelor's degree.)

3) interest in preparing for a new occupation or upgrading in present job by enrolling in educational programs that award an associate degree, certificate, and other awards and their choice of type of institution in which they would like to enroll

4) special educational needs for which they would like to see new, changed, or expanded programs offered.

C. To survey Bergen County chief public school administrators' perceptions of the status and priorities of career/vocational programs and services in their districts and to compare and contrast the results obtained with the findings from the the student survey.

D. To prepare (and to present to guidance directors and counselors at an inservice-workshop) and to disseminate specially prepared materials designed to inform students regarding promising new occupations requiring specialized educational preparation at the adult and postsecondary level (to be done prior to B above.)

E. Review and summarize available current national, state, and county manpower demand and supply data, and other information and relate these to the student survey findings regarding academic plans, career choice, and to the superintendent survey findings regarding the status and scope of the various local technical vocational programs, making recommendations designed to encourage:

1) the implementation of new programs, the prevention of duplication and unneccsary overlapping;

2) the coordination of programs to minimize the production of surpluses of trained persons and/or the neglect where there is a critical demand in others;

3) planning so that occupational education can have an optimum impact upon students and the economy.

F. Relate the study findings to those obtained from a rather similar study conducted by the Council in the Spring of 1972, including a determination whether any modifications in sex bias and sex role stereotyping in career/vocational choices and programming had taken place, as well as whether there was evidence suggesting an enhancement of interest in energy education.

G. Prepare a final report and disseminate these among the interested and concerned state and county agencies, and local public and non-public school districts, etc.

H. Distribute applicable individualized computer printouts and other explanatory materials to each local school district. The Bergen County Career Education Coordinating Council, and the County Career Education Coordinator will assume a continuing responsibility for consultation and follow-up.

III RELATED RESEARCH AND/OR BACKGROUND INFORMATION

The following discussion of the implications of related research for the proposed study is mainly focused on the topics of career development and vocational choice.

Much of the research on vocational choice has been based on the concept of development through life stages. The origin of this approach has been attributed to Ginzburg and his associates[4] who in 1951 sharply criticized vocational guidance for its lack of theory.

The response to Ginzberg's challenge has been closely associated with Super's (1953, 1957)[7] Career Pattern Studies at Columbia, and Roe's (1956)[8] and Tiedman's (1963)[9] studies of career development at Harvard. In the process of showing how personality related to occupation, Roe developed her widely used occupational system. Tiedman's work, by contrast, has focused on the decision-making aspect of career development. Project Scope at the University of California (Tillery 1966)[10] recognized the need to dig into the longitudinal bases of educational and career decisions. By contrast, Holland's (1966)[5] work represents a relatively recent model of decision making as it was related to six types of personal orientation.

Project Talent (Flanagan and Cooley 1966)[3] represented an ambitious effort to develop a national baseline of normative information regarding career development. A general conclusion that could be drawn from the Project Talent follow-up studies was that career plans made in high school are rather unstable. However, neither standardized ability nor motivational test scores proved to be better predictors of eventual career choices than did merely asking students what they wanted to be after high school. Crites (1969)[2] stated the matter more elegantly by noting that despite "whatever instability there may be in early choices, their common variance with later choices is great enough that it counter balances the higher reliability, but lower predictive validity of standardized tests."

Thus, since the ultimate value of any prediction model resides in useful information it provides students and educators, it is considerably more economical and administratively feasible to elicit vocational choices from the students and adults by this means rather than to administer an extensive battery of tests. This is the approach adopted in this proposed study.

Since 7th, 8th, 10th, and 11th grade students' expressions of interest in various occupations constitute the basic underpinning of this proposed study, can we be reasonsably confident in using these results as a basis for guidance or general program planning? According to Cole and Hall (1970)[11], the research evidence is almost overwhelming in favor of the continuity of interests from adolescence to adulthood. During this period, students increasingly show rather well developed patterns of interest and the stability of their choices increases as they go into the junior and senior years. The delineation of patterns of choices from grade to grade are of intrinsic interest to researchers and counselors, as well as those responsible for planning programming.

Blau and his colleagues (1968)[1] studied the immediate determinates of occupational choice and entry. These were believed to be occupational information, technical qualifications, social role characteristics, and reward value hierarchy. In general, they concluded that the more a generally capable individual knows about occupations the more freedom he has in making a vocational choice. Considering the present state of the art, the provision of occupational information is one of the most valuable functions that guidance programs can perform. This premise was reflected strongly in the objectives of this study.

Information is available in the literature regarding the relative merits of various methodologies and instruments. The predominant technique used by vocational researchers to measure vocational choice have been the interview, the open-ended question and the closed-form questionnaire. Since the latter has been selected as the instruments of choice in this study, what can be said about its reliability and validity? Crites (1969) concluded that the questionnaire, though not wholly adequate, was more reliable than the other two instrumentalities by virtue of its greater structure and more extensive standardization. The best reliability coefficient estimates for the various techniques were in the .70's and .80's. Thus, the closed-form questionniare was considered sufficiently reliable to measure choice as a phenomenon, particularly where the interest is in group rather then individual prediction.

IV METHODS AND PROCEDURES

A. Survey Instruments

1) Student/Parent Questionnaire

The "Occupational Interest Survey" booklet consisting of two detachable student and parent survey questionnaires, plus related descriptive material regarding educational institutions providing career-training in Bergen County, was specially designed for this study. (See appendix)

Following detailed review by members of the Council, including the Chairman, Superintendent of the Bergen County Vocational-Technical Schools, the representative of the Directors of Guidance, and the Executive Secretary, the draft questionnaires were pretested at the Ramapo-Indian Hills High School and The Franklin Lakes Middle School. An analyses of the comments reported by 98 students and 48 parents on specially designed "Pilot-Test-Student-Parent Feedback" instruments indicated the instructions for administration were clear and that the survey questionnaires possessed requisite reliability and content validity. Some minor changes were made to improve the clarity of the wording.

2) "Survey of Bergen County Chief Administrators' Perceptions of the Status and Priorities of Career/Vocational Programs and Services in Their Districts"

This questionnaire was also specially designed by the the project director in close consultation with the Council Chairman and the Council Executive Secretary. It was distributed to all Public School Chief Administrators during the first week of June 1978, along with a copy of the "Career Development Model - A Flexible Continuum of Vocational-Technical Programs and Services" prepared by the New Jersey Department of Education, Division of Vocational Education. (see appendix)

B. Target Populations and Samples

1) Schools Participating In Study

All public and Catholic schools with students enrolled in the 7th, 8th, 10th, and 11th grades constituted the target population for this study.

In 1977-78 the Bergen County public system consisted of 234 elementary schools and 66 secondary schools throughout 77 school districts. Of these 300 schools, 145 elementary, junior high, middle and/or high schools conducted classes in at least one of the four grade levels. All but one elementary, one middle, one junior/senior high, and two senior high schools participated in the study - an overall eligible school participation rate of 96.6%.

A total of 69 of 76 elementary and 10 of 12 secondary Catholic schools also elected to participate in the study - an overall eligible school participation rate of 89.8%.

Originally, all other non-public schools with enrollments in these four grades had been invited to participate in the study, but only one very small church affiliated school elected to do so. Total enrollments in these schools in the four grades, based on a phone survey, totalled slightly less than 1,000 students.

2) Students Target Population

The target population consisted of 60,502 public and Catholic non-public school students - 14,403 seventh, 14,718 eighth, 15,944 tenth, and 15,437 eleventh graders. (see Table A below)

Table A

Total School Enrollments - As of September 1977 1/

GRADES

	7th		8th		10th		11th		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
PUBLIC	12,106	23.2	12,261	23.5	14,110	27.0	13,717	26.3	52,194	100
CATHOLIC	2,297	27.6	2,457	29.6	1,834	22.1	1,720	20.7	8,308	100
TOTAL	14,403	23.8	14,718	24.3	15,944	26.4	15,437	25.5	60,502	100

1/ Sources - Office of Bergen County Superintendent
Office of Archdiocese of Newark Schools

3) Non Participating School Population

A total of 2,458 students were enrolled in the five non-participating public schools, or 4.7% of the total of 52,194 public school students. There were 766 students enrolled in the nine non-participating Catholic schools - 9.2% of the 8,308 total enrollment. Overall, 3,224 or 5.3% of the total target population of 60,502 students were not available for study. The above data include one Catholic high school whose questionnaires were received after the extended computer processing deadline.

4) Parent Target Population

The target population of parents consisted of all living and accessible mothers and fathers (or guardians) of the 60,502 students - a population on the order of 100,000 individuals.

5) Chief School Administrators Target Population

The target population here consisted of all Bergen County public school district superintendents and/or administrative principals, other than the Rockleigh, Teterboro, Special Services School, and the Bergen County Vocational/Technical School district superintendents.

C. Sampling Method and Sample Sizes

During May 1978, students were requested to complete, in class, the detachable one page student questionnaire contained in the Occupational Interest Survey booklet. These questionnaires were then immediately collected by the teachers. This approach ensured both a maximum return of the questionnaires and that as many students as possible received the information provided in the booklet regarding academic and career/vocational opportunities. Even if the provision of career/vocational information had not been considered to be of critical importance, a smaller random sampling of students within or across classes would have presented almost insurmountable administrative and logistic problems.

Teachers were requested to urge students to take home their survey booklets and to return the completed one-page parents' questionnaires to their schools. Though experience has demonstrated that relatively few students can be depended upon to bring materials home to their parents, this "broadside" approach at least ensued that as many parents as possible received career/vocational information and were given an opportunity to note their interests.

A total of 43,180 student questionnaires were collected, representing 75.4% of the total 57,278 participating school enrollments and 72.1% of the total 60,502 target school enrollments. These 43,180 questionnaires included 37,615 public school and 5,565 Catholic school students. The 37,615 completed public school questionnaires represented 75.6% of the 49,736 participating public school enrollments and 72.1 of the 52,194 target public school enrollments. The 5,565 Catholic school questionnaires represented 73.9% of the 7,532 participating Catholic school enrollments and 70.0% of the total 8,308 target Catholic school enrollments. Thus, despite the non-participation of a few school, normal attrition, and absenteeism, the pool of 43,180 student respondents, constituted more than 70% of the total target population.

From these 43,180 student questionnaires, a 20% random sample of 8,637 was selected for analysis. The high overall participation rate of the schools and the size and random character of the sample provide a substantial basis for confidence in any conclusions drawn from the survey findings.

A total of 27,023 parents completed and returned their questionnaires - consisting of 12,770 fathers (or male guardians) and 14,253 mothers (or female guardians). These respondents represented sizeable fraction of about 20% - 25% of the estimated target parent population, but not an unbiased (representative) sample.

Accordingly, no attempt was made to sample further from these questionnaires or to project from the sample to all of the 100,000 or so parents. The information these parents provided can be regarded in its own right as a useful but incomplete assessment of the academic and occupational interests and plans of an important segment of the concerned adult population of Bergen County.

A total of 60 questionnaires were received from the total of 73 district superintendents and/or administrative principals contacted - a 82.2% response rate. The Rockleigh and Teterboro Districts, which do not have any school buildings, and the Bergen County Vocational-Technical Schools and the Bergen County Special Services District were not surveyed.

D. Data Analyses and Estimation Procedures

1) The percentages of students in the sample checking alternative answers to each of the survey questions were projected to yield estimates of the numbers these constituted of the total target populations enrolled in each grade. A variety of other related analyses and projections were carried out to provide detailed data and estimates by sex, age, type of school, county geographical sector, school district, and whether public or Catholic, etc. (A list of the municipalities comprising each of the six sectors is to be found in the appendix - Table 1)

2) Analyses of the parental questionnaire responses by sex, geographical sector, and school districts (public and Catholic) were also conducted.

3) The student/parent occupational interest data and the information regarding programs and career/vocational program priorities supplied by the superintendents were analyzed and correlated to the extent possible with current and project manpower demand data.

V FINDINGS AND INTERPRETATION OF FINDINGS

A. Student Survey

1) Age (Question 1)

Students in the total respondent sample ranged in age from 12 years to 18 years and over; the median age was 14 years. The median age was 15 in the public schools and 14 years in the Catholic school.

2) Sex (Question 2)

The distribution of the sexes in the total respondent sample was 50.4% male and 49.6% female; in the public schools 50.0% and 50.0%; in the Catholic schools 53.3% and 46.7%, respectively. Males were underrepresented by 0.2% in the total respondent sample and 0.4% in the public school sample; and overrepresented by 1.9% in the Catholic school sample - all rather minor discrepancies.

3) Distribution of Grade Placements (Question 3)

The distribution of the total respondent sample by grade, with corresponding target population percentages in parenthesis, was: 24.1% (24.1%) seventh; 26.5% (24.5%) eighth; 25.1% (26.1%) tenth; 23.5% (25.3%) eleventh grade; and 0.7% did not answer. The grade placement distributions among the public and Catholic schools respondent samples were similarly close to their corresponding actual target populations.

In general, the age, sex, and grade placement distributions in the respondent samples closely resembled those found in the actual target populations - a finding lending further confidence regarding the representativeness of the data.

4) Whether Presently Enrolled In a Satellite (Shared Time) Vocational Center (Question 4)

About 2% of the total respondent sample, 2.3% of the public school sample, and 0.6% of the Catholic school sample were enrolled in a Satellite Vocational Center. More males (2.5%) than females (1.5%) were enrolled.

Among the six county georgraphical sectors the percentage enrollment of the total respondent sample was highest in sector 1(Southwest Bergen County) with 4.0% and lowest in sector 5 (Pascack Valley) with 1.6%.

5) Whether Students Not Presently Enrolled Would Be Interested In Enrolling In A Satellite Vocational Center (Question 5)

Overall, over 11% or nearly 7,000 students expressed interest. This was higher than the 8% figure reported in the Spring 1972 study of 8th to 12th grade students. In the latter study the level of interest expressed was rather consistent over the five grade ranges surveyed. In the present study, interest was particularly marked in the 7th and 8th grades but dropped in the upper two grades.

In the present study, a projected total of 16.6% (2390) seventh, 14.3% (2104) eighth, 7.8% (1243) tenth, and 4.9% (756) eleventh graders expressed interest. An additional 26.8% of the total respondent sample checked "not sure." Among this "not sure" group (16,215), there are probably a substantial pool of potential enrollees.

Interest was significantly higher among the Catholic than among the public school students - 15.5% as compared with 10.8%. It was also somewhat higher among male than among female students - 12.7% compared with 10.0%. In the six districts, interest was highest in sector 1 (Southwest Bergen) with 15.3% and lowest in sector 6 (Northwest Bergen) where 8.8% of the students expressed an interest in enrolling.

6) Whether Students Planned To Graduate From High School (Question 6)

97.4% of the students planned to graduate, 1.5% were not sure, 0.6% did not plan to graduate, and 0.5% did not answer the question. This high level of expectancy was held throughout all the grades, sexes, public and Catholic schools and sectors.

7) Whether Students Planned To Work On A Part-Time Basis When They Graduate From High School (Question 7)

Overall, 44.5% of the total respondent sample anticipated part-time employment, 20.0% did not, 35.0% were not sure, and 0.5% did not answer. As the students progressed from grades 7 to 11, the percentage planning to work part-time varied by less than 3%. The overall expectancy that they would engage in part-time employment was significantly higher among the Catholic school students (52.5%) than among the public school students (43.3%) and slightly higher among females (46.0%) than among males (43.0%).

A similar question had not been included in the 1972 questionnaire.

8) Whether Students Planned To Work On A Full-Time Basis When They Leave High School (Question 8)

The estimated numbers of students anticipating full-time employment fluctuated at 2377 (16.5%) in the 7th, 2340 (15.9%) in the 8th, 296 (18.6%) in the 10th, and 2809 (18.2%) in the 11th grades. The percentages checking "not sure" dropped from 36.5% in the 7th to 22.6% in the 11th with the shift in the direction of those who were not planning full-time work.

In the four grades the percentages of students who planned to work full-time were around 3% higher than that reported in the 1972 study. In 1977, the higher percentage of all the public school students (18.5%) was only partially offset by a much lower percentage of Catholic school students (9.5%).

9) Whether Students Were Interested In Continuing Their Education After High School (Question 9)

For the total respondent sample, 75.5% of the students were interested in continuing their education, 6.9% were not, 17.4% were not sure, and 0.2% did not answer. The percentages interested varied in a narrow range increasing from 72.8% in the 7th to 79.4% in the 11th grades. Overall, interest in continuing was higher among the Catholic school students (91.2%) than among the public school students (74.6%). There was only a small difference between the males (75.0%) and the females (76.2%). The percentages of males and females checking "not sure" about continuing were practically the same, 17.4% and 17.3%, respectively.

These findings were within 3 percentage points of those reported in the 1972 study, suggesting that the students' interest in continuing their education has remained at nearly the same high level.

Among the six districts, the percentage of students interested in continuing their education ranged progressively upward from 65.2% in sector 1(Southwest Bergen), 73.1% in sector 2(Southeast Bergen), 74.6% in sector 3(Central Bergen), 76.3% in sector 4(Northern Bergen), 81.9% in sector 5(Pascack Valley), and 82.2% in sector 6 (Northwest Bergen).

10) Helpfulness Of Schools In Informing Students About New Career Opportunities (Question 10)

Students were requested to indicate how helpful their schools had been in informing them about the many new career opportunities created by modern technology and the increase of man's knowledge. Examples provided them in the questionnaire included environmental, computer, and electronic related career areas.

Overall, about two-thirds (66.0%) of the students checked that they had received some help - 32.7% checking either "very helpful" or "helpful" and 33.3% "slightly helpful." Another 32.4% checked "not helpful", and 1.5% did not answer. The percentages in the various grades indicating that they had received some help progressively increased - 51.0% in the 7th; 63.8% in the 8th; 68.7% in the 10th; and 71.7% in the 11th grades. This progressive increase may reflect the students' maturing, their growing concern regarding their future employment, and their receptivity to guidance and information provided by the schools.

Slightly more of the public school students (64.2%) than Catholic school students (60.7%) checked that their schools had been of some help. About 4% more of the females than the males rated their schools as "not helpful."

Though the data suggests that students could use more information about new careers, the rather ambiguous nature of the phrase "new career opportunities" might have encouraged students to check rather automatically that they had not received useful information.

Actually, there has been relatively little publicity and other information regarding approved training programs, employment opportunities, or reliable manpower supply and demand data available to either the schools or the students regarding these new occupations. Some of these problems are currently being addressed by the State of New Jersey's "1202 Commission."

11) Helpfulness Of Schools In Informing Students About The Vocational and Technical Programs Offered By Bergen County Schools and Colleges (Question 11)

Overall, about two-thirds (65.5%) of the students checked that their schools had been of some help - 7.5% "very helpful," and 28.5% "helpful," and 29.5% slightly helpful. Another 32.5% checked "not helpful," and 2.0% did not answer the question. A significantly larger percentage of the public school students (66.8%) than Catholic school students (56.1%) believed that they had received some help. About 2.5% more males than females believed that they had received some help. Also these percentages reporting of "some help" increased progressively through the grades - 45.3% in the 7th, 69.8% in the 8th, 73.0% in the 10th, and 73.1% in the 11th grades. In the various sectors the students' ratings of having received some help ranged from 62.6% in sector 6 (Northwest Bergen) to 70.7% in sector 1 (Southwest Bergen).

12) Helpfulness Of The Schools In Informing Students About The Attitudes and Work Habits Needed For Obtaining and Holding A Job (Question 12)

Overall, 79.8% of the students indicated that their schools had provided them with some help - 17.0% checked "very helpful", 35.5% "helpful", and 27.3% "slightly helpful." Significantly more Catholic school students (86.6%) than public school students (78.8%) rated the help received positively. Differences in the ratings between the males and females were minor - 79.4% and 80.5%, respectively. In the six sectors, positive ratings ranged from 77.6% in sector 5 (Pascack Valley) to 83.0% in sector 1 (Southwest Bergen)

Interest In Enrolling In A Day Or Evening Program After School Graduation At Various Institutions

13) At Bergen County Vocational-Technical Adult Schools (Question 13)

Overall, 4.4% of the total respondent sample expressed an interest in enrolling at these schools. The same percentage of public school students and 4.9% of the Catholic school students indicated their interest. Males (5.4%) were more interested than females (3.4%) In the six sectors, the percentages ranged from 3.5% in sector 6(Northwest Bergen) to 5.4% in sector 1 (Southwest Bergen).

The percentages and numbers of interested students generally increased from 4.6% (est.662) in the 7th, 3.6% (est.529) in the 8th, 4.7% in the 10th (est.749) to 7.1% (est.1,096) in the 11th grades. The percentage of students checking that they were "not sure" about enrolling ranged between 0.1% and 0.5%.

Comparable data was not available from the 1972 study.

14) At Bergen Community College, Liberal Arts And Sciences Transfer Programs (Question 14)

Overall, 6.9% of the total respondent sample, 6.5% of the public school, 4.9% of the Catholic school, 6.1% of the male, and 7.6% of the female students expressed an interest in enrolling in a Bergen Community College Transfer Program. In the six sectors, the percentages ranged from 6.1% in Sector 4 (Northern Valley) to 7.9% in sector 2 (Southeast Bergen).

In the four grades, 8.9% of the 7th (est.1281), 5.7% of the 8th (est.839), 6.3% of the 10th (est.1004), and 6.5% of the 11th (est.1003) grade students were interested. The percentages of students who checked that they were "not sure" dropped from 36.8% (est.5300) in the 7th, 28.3% (est.4165) in the 8th, 23.5% (est.3747) in the 10th, to 22.7% (est.3504) in the 11th grades. The shifting of responses were from "not sure" to the "not interested." While the reasons for this change deserve further investigation, it can be noted that the percentages of interested students were considerably higher than that found in the 1972 study - 8.9% vs. 3.1% in the 8th, 5.7% vs. 3.8% in the 10th, and 6.5% vs. 5.2% in the 11th grades.

15) At Bergen Community College, Career Vocational Program (Question 15)

Overall, 8.9% of the total respondent sample, 8.6% of the public school, 11.2% of the Catholic school, 7.7% of the males, and 10.2% of the female students expressed an interest in enrolling in a Bergen Community College career vocational program. In the six sectors, the percentages ranged from 7.4% in sector 4 (Northern Valley) to 10.3% in sectors 1 (Southwest Bergen) and sector 3 (Central Bergen).

The percentages expressing an interest in the four grades were: 12.0% (est.1728) in the 7th, 8.3% (est.1221) in the 8th, 6.8% (est.1084) in the 10th, and 8.6% (est.1328) in the 11th grades. The level of interest was somewhat higher than that reported in the 1972 study, e.g., 8.3% vs. 5.8% in the 8th, 6.8% vs. 6.7% in the 10th, and 8.6% vs. 8.1% in the 11th grades.

As was the case of the Bergen Community College transfer programs discussed in the section above, the percentage of "not sure" responses shifted sharply downward - from 36.8% in the 7th (est.5300) to 22.7% (est.3504) in the 11th grade. The 1972 survey had revealed a sharp upturn in the number of students interested in these programs among 12th graders - a grade level not surveyed in the present study. Thus, the estimated combined total of 11th graders expressing an interest in either a transfer or career-vocational program at Bergen Community College may thus be an underestimate of the actual number of these students that will eventually enroll in Bergen Community College.

16) At Another 2-Year College-Transfer Program (Question 16)

Overall, 6.1% of the total respondent sample, 6.1% of the public school, 5.6% of the males, and 6.5% of the females expressed an interest in another 2-year college transfer program. It should be noted that a student's expression of interest program did not preclude a concomitant interest in such programs at Bergen Community College. In the six sectors, the percentages ranged from 5.3% in sector 6 (Northwest Bergen) to 7.0% in sector 5 (Pascack Valley).

The percentages expressing an interest in the four grades were: 6.9% (est. 994) in the 7th, 5.0% (est.736) in the 8th, 6.1% (est.973) in the 10th, and 6.3% (est.973) in the 11th grades.

17) At Another 2-Year College Career-Vocational Program (Question 17)

Overall, 6.5% of the total respondent sample, 6.5% of the public school, 6.0% of the Catholic school, 5.9% of the males, and 7.1% of the females expressed an interest in another 2-year college career-vocational program. In the six sectors, the percentages ranged from 4.6% in sector 6 (Northwest Bergen) to 7.9% in sector 2 (Southeast Bergen).

In the four grades, the percentages expressing an interest were: 6.9% (est. 993) in the 7th, 5.4% (est.794) in the 8th, 6.4% (est.1020) in the 10th, and 7.4% (est.1142) in the 11th grades. The percentages of "not sure" responses dropped from 41.7% in the 7th to 21.4% in the 11th grades.

18) At A 4-Year College/University (Question 18)

In contrast to the relatively low levels of interest expressed in the above adult schools and 2-year colleges, the overall percentage of the respondent sample expressing an interest in 4-year colleges/universities was 59.9%, among the public school students 58.3%, Catholic school students 70.4%, males 61.4%, and females 58.5%. In the six sectors, the percentages ranged from 50.4% in sector 1 (Southwest Bergen)to 69.2% in sector 6 (Northwest Bergen) - a rather wide variation.

59.7% (est.8599) of the 7th, 60.9% (est.8963) of the 8th, 60.3% (est.9614) of the 10th, and 59.3% (est.9154) of the 11th graders expressed an interest. The percentages of "not sure" responses dropped from 23.4% in the 7th to only 13.5% in the 11th grades.

The percentages of students interested in attending these 4-year institutions was higher than that reported in 1972 - 60.9% vs. 57.3% in the 7th, 60.3% vs. 52.7% in the 8th, 60.3% vs. 52.7% in the 10th, and 59.3% vs. 51.3% in the 11th graders.

19) At An Adult Community Continuing Education School (Question 19) 4.0% of the total respondent sample, 3.9% of the public shcool, 4.9% of the Catholic school, 3.3% of the males and 4.7% of the students expressed an interest in attending. In the six sectors the percentages ranged from 3.3% in sector 5 (Pascack Valley) and sector 6 (Northwest Bergen) to 5.5% in sector 2 (Southeast Bergen).

5.4% (est.777) of the 7th, 4.2% (est.618) of the 8th, 3.5% (est.558) of the 10th, and 2.8% (est.432) of the 11th grade students - a diminishing progression - expressed an interest in this type of education. The percentage of "not sure" responses also dropped from 34.9% in the 7th to 16.0% in the 11th grades.

In the 1972 study, students had been asked to indicate their interest in schools that did not grant college degrees (adult-vocational, commercial.) However, these data cannot readily be compared with those referred to in this question and in question 20 below.

20) At A Private Business/Technical School (Question 20)

11.8% of the total sample were interested, as were 11.8% of the public and 11.2% of the Catholic school, and 11.8% of male, and 11.8% of the female students. In the six sectors, the percentages ranged from 8.9% in sector 6 (N.W. Bergen) to 13.9% in sector 2 (S.E. Bergen).

In the four grades, 8.7% (est.1253) of the 7th, 10.5% (est.1545) of the 8th, 14.1% (est.2248) of the 10th, and 13.7% (est.2114) of the 11th grade students expressed an interest in these types of school - perhaps a reflection of growing awareness of the need to acquire "marketable" skills.

The percentage of "not sure" responses dropped progressively from 38.4% in the 7th to 26.0% in the 11th grade.

21-22) Major Fields or Subjects Offered In 2-Year College Liberal Arts and Science Programs Or In 4-Year College/University In Which Students Were Interested (Questions 21-22)

Students who had indicated an interest in these programs were requested to specify their first and second choices among 24 listed subject areas. This listing was based on The Program Classification Structure Program Categories (HEGIS Taxonomy), adopted by the National Center For Higher Education Management Systems in 1972.

Tables 2, 3, 4, and 5 (appendix) show the percentages of the total respondent sample, and total samples of the public and Catholic schools, male, female, and 7th, 8th, 10th, and 11th grade students choosing various programs.

Overall, the data reveals some differences among the above groups. Thus, 15.5% of the total respondent sample, 16.2% of the public school students, but only 11.0% of the Catholic school students indicated that they were not interested in enrolling. 17.7% of the total, 18.7% of the public school, but only 11.1% of the Catholic school students were not sure of the liberal arts and sciences subject or field in which they would major. More males than females were interested in agriculture/natural resources, business/management, computer and information sciences, engineering, law, mathematics, military science, and the physical sciences. More females than males were interested in communications, education, fine and applied arts, foreign languages, health and medical professions, home economics, letters, and psychology.

There are no comparable data regarding student interests in the liberal arts and sciences available from the 1972 study which could pinpoint possible shifts in the interests of male and female students. The current data does suggest, however, that many of the liberal arts and science fields selected tend to be along the more traditional sex-oriented lines. However, these differences among the sexes were generally not sharp.

The data in Tables 4 and 5 reveal drop-offs in interest from grades 7 through 11 in architecture and environmental design, area studies, education, health and medical professions, home economics, law, and physical sciences. Increased interest can be noted in the upper grades in business and management, communications, public service and affairs, and social sciences.

23-24) Occupational Interests Of Students In Vocational-Technical Programs And Courses Leading To Associate Degrees, Certificates, And Other Awards (Questions 23-24)

Students were requested to indicate their first and second choices among 87 vocational-technical programs and courses that were designed to prepare them for an occupation.

Tables 6 to 9 show the percentages of the respondent samples and the estimated numbers of students these represent in the various target population groups, including public and Catholic school, male and female, and 7th, 8th, 10th, and 11th grade students.

Tables 10 to 15 show the estimated numbers of students in these target groups selecting, as their first and second choices, the 30 most popular vocational/technical programs/courses.

The percentage of students in each of these target groups that were not interested in any of these 87 occupational areas was rather consistently about 30%, with the exception of the Catholic schools sample was about 24%. More of the Catholic school students were interested in liberal arts and sciences programs.

In rank order the male top 10 first choices included:

1) automobile and diesel mechanic; 2) business management; 3) pilot training; 4) accounting and bookkeeping; 5) architectural building technology; 6) automobile body repair; 7) electronic technology; 8) police science (law enforcement); 9) carpentry, and 10) commercial art. The percentages of the total male respondent sample selecting these occupations ranged from 2.2% (est.674) for commercial art to 4.9% (est.1500) automobile and diesel mechanic.

The female top 10 choices included:

1) secretarial science; 2) beauty culture and cosmetology; 3) commercial art: 4) theatre art; 5) nursing, R.N.; 6) Interior design; 7) child care-pre-elementary education; 8) accounting and bookkeeping; 9) photography; and 10) communications and broadcasting. The choices ranged from 2.0% (est.598) for communications and broadcasting to 5.5% (est.1643) for secretarial science. It can be noted that photography which was the 9th choice of the females was the 12th choice of the males. Communications and broadcasting was the 10th choice of the females and 13th of the males. Only accounting and bookkeeping, and commercial art appeared on both male and female top 10 lists.

From the 7th to the 11th grade, there was some shifting in the relative positions of the students' choices. However, 5 of the top 10 in the 7th grade list consistently appeared also among the top 10 occupations chosen by the 8th, 10th, and 11th grade students. These included secretarial science, nursing, photography, commercial art, and automobile and diesel mechanic.

The other 5 dropped below the top 10 group but remained among the top 30.

In the 1972 study the top 10 vocational-technical programs chosen by 8th-12th graders included, in rank order: 1) secretarial science; 2) auto mechanics; 3) nursing; 4) commercial art; 5) beauty culture; 6) accounting; 7) child care (pre-elementary education) 8) electronic technology; 9) carpentry; and 10) forest technology.

Seven of these occupational choices were also selected by the total student respondent sample in the current study.

The most popular vocational-technical programs included among the students' second choices were rather similar to those selected as their first choices.

The relationship of the students' choices of occupational areas to current and projected manpower supply and demand data are discussed in section C of this report.

B. Parent Survey

1. Whether Parents (Or Guardians) Are Or Have Been Enrolled In Occupational Training Programs (Questions 1-16)

Note: In the discussion that follows the number of respondent parents answering a particular questionnaire item will not be projected to the number this represents of the total theoretical parent population of about 100,000 or more. The number of respondent parents answering an item might be reflective of a group that is two or three times larger, but the uncertain nature of the respondent sample makes planning based upon such extrapolations rather hazardous.

a. Enrolled In High School Vocational Programs (Questions 1 and 9)

2,317 (8.6%) of the total of 27,023 respondent parents 1,785 (8.2%) of the public and 532 (10.0%) of the Catholic school parents were or had been enrolled at the time of the survey. The number of fathers and mothers enrolled were rather similar —— 1,119 (8.8%) and 1,198 (8.4%), respectively.

b. Enrolled In A Public Vocational-Technical High School (Questions 2 and 10)

1,307 (4.8%) of all the parents, 1,043 (4.8%) of the public and 264 (4.9%) of the Catholic school parents, and 935 (7.3%) of the male, and 372 (2.6%) of the female parents were or had been enrolled.

c. Enrolled In Adult Community Continuing Education Schools (Questions 3 and 11)

3,997 (14.8) of all the parents, 3,230 (14.9%) of the public and 767 (14.4%) of the Catholic school parents, and 1,336 (10.5%) of the male and 2,661 (18.7%) of the female parents were or had been enrolled.. Interest was significantly higher among the female than among the male parents in these types of schools.

d. Enrolled In Private Business/Technical/Vocational School (Questions 4 and 13)

3,827 (14.2%) of all the parents, 3,029 (14.0%) of the public and 3,878 (14.9%) of the Catholic school parents, and 2,031 (15.9%) of the male and 1,796 (12.6%) of the female parents were or had been enrolled —— a somewhat larger proportion of males.

e. Enrolled In A Junior College (Community Or Private) (Questions 5 and 13)

1,874 (6.9%) of all the parents, 1,520 (7.0%) of the public and 354 (6.6%) of the Catholic school parents, and 701 (5.5%) of the male and 1,173 (8.2%) of the female parents were or had been enrolled.

f. Enrolled In A Four Year College (Questions 6 and 14)

8,101 (30.0%) of all the parents, 6,718 (31.0%) of the public and 1,383 (25.9%) of the Catholic school parents, and 4,920 (38.5%) of the male and 3,181 (22.3%) of the female parents were or had been enrolled.

g. Enrolled In A Graduate School (Questions 7 and 15)

3,980 (14.7%) of all the aprents, 3,320 (15.3%) of the public and 660 (12.4%) of the Catholic school parents, and 2,522 (19.7%) of the male and 1,458 (10.2%) of the female parents were and had been enrolled.

In general, a significantly greater percentage of the fathers than the mothers were or had been enrolled in a vocational-technical high school, a private business/technical/vocational school, a four year college, or a graduate school. Greater percentages of the mothers were or had been enrolled in adult community continuing education schools and junior colleges.

2. Interest Of Parents In Enrolling In Some Type Of Degree Program Or Courses At Either A 2-Year College (Associate Degree) Or At A 4-Year College/University (Bachelor's Degree)

(Questions 17 and 22)

4,692 (17.3%) of the 27,023 parents indicated specific liberal arts and science programs or courses in which they were interested. Among the sub-populations, 3,702 (17.1%) of the public and 990 (18.5%) of the Catholic school parents, and 1,477 (11.5%) of the male and 3,215 (22.5%) of the female parents expressed specific interests in enrolling in one of 24 listed liberal arts and sciences programs or course areas.

See Tables 16 and 17 (Appendix) for detailed data regarding their first and second choices.

Among all parents, interest was highest in business and management (4.6%) - 1,256) and health and medical professions (2.7% - 737). In all other areas, the percentages checking interests ranged from 9 (0.0%) parents selecting theology to 247 (0.9%) parents selecting computer and information sciences.

Among the male parents, the area of greatest interest was business and management (4.3% - 548), followed by engineering (1% - 133). Among female parents, interests were clustered more extensively, i.e., business and management (5.0%) - 708), health and medical professions (4.9% - 696), fine and applied arts (1.4% - 194), and psychology (1.2% - 174).

3. Whether Parents Were Interested In Enrolling In Educational Programs That Award Associate Degrees Or Certificates And Which Prepare For New Occupations Or Upgrading In Present Job

(Questions 23-26)

Tables 18 and 19 (Appendix) provide data regarding the first and second choices of those parents among 87 programs. Tables 20 and 21 show in rank order, the 30 most popular of these 87 programs. Of the total of 27,123 parents, 5,980 (22.1%) indicated first choices and 4,691 (17.4%) indicated second choices among 87 programs. The remainder did not answer or definitely indicated that they were not interested.

Business management (1.8% - 485), accounting and bookkeeping (1.6% - 431), real estate and insurance (1.0% - 268), business administration (0.9% - 242), secretarial science (0.9% - 235), business computer programming (0.8% - 227), nursing (0.8% - 212), small business management (0.8% - 206), interior design (0.7% - 186), and banking and finance (0.5% - 135), ranked among the first 10 of 30 first choices.

The top 10 first choices of parents in the 1972 study included: hotel/motel and restaurant management, practical nursing, medical assistant, and key punch operator, but did not include business computer programming, nursing, small business management, interior design and banking and finance.

It can be noted that 5 of the current top 10 first choices of the male and of the female parents were the same in 1972 and in 1978 — business management, real estate and insurance, business administration, business computer programming, and accouting and bookkeeping. However, as was the case in the 1972 study, most females selected the more usual occupations.

Male parents, in general, tended to select the traditionally "male" programs and female aprents the traditionally "female" programs. The relatively low rate of selection of both males and females of the new and emerging career areas remains an area of concern that should be addressed in the coming period. These new areas offer promise of substantial career opportunities for many individuals.

4. Choices Of Educational Institutions Of Parents Who Indicated An Interest In Educational Programs Or Courses (Questions 27 to 42)

The choices of the total respondent parents were: Bergen County Vocational-Technical Adult Schools (evenings) 6.8% (1,831), Adult Community Continuing Education Schools 5.7% (1,553), Bergen Community College liberal arts transfer programs 3.9% (1,045), Bergen Community College career vocational programs 6.7% (1,804), some other 2-year college 1.1% (291), a 4-year college/university 4.4% (1,178), a private business/technical vocational school 1.5% (402), and some other type of school 2.3% (615).

Table 22 (Appendix) provides additional information regarding the type of schools preferred by male and female and public and Catholic school parents. In general, the choices among these subpopulations were similar. However, more females (7.3%) than males 3.8%) preferred an adult community continuing education school. It should be emphasized that parents may have indicated their interest in both liberal arts and science and in career vocational programs. It is known that significant numbers of students who complete 2-year associate degree career programs in such subjects as accounting, business management, police science, etc., continue their education, many while holding full-time positions related to their field of learning at a 2-year college.

5. Interests Of Parents In Programs Not Covered In Questionnaire Lists

An analysis of the write-in answers of a sample of approximately 1,000 parent questionnaires revealed a wide range of individual programs in which they were interested. In general, these represented a more specific detailing of programs and topics subsumed within the broader liberal arts and science and vocational/technical categories listed plus a number of the traditional types of non-credit adult community continuing education programs, including vocational and recreational activities. Time and resources permitting, a more rigorous analyses of all the write-in responses by individual school districts might prove helpful.

C. Survey Of Bergen County Chief School Administrators' Perceptions Of The Status And Priorities Of Career/Vocational Programs And Services In Their Districts

1. Type of Schools In Districts (Questions 1-4)

Among the 60 respondent school districts, 55 (91.7%) had at least one elementary school, 35 (58.3%) a middle or junior high school, 35 (58.3%) a high school, and 16 (26.7%) an adult community continuing education school.

2. Grade Ranges In Districts (Question 5)

Grade ranges reported by the districts were: 1 (1.7%) K-6; 24 (40.0%) K-8; 15 (25.0%) K-12; 1 (1.7%) 7-12; 3 (5.0%) 9-12; 15 (25.0%) K-adult; and 1 (1.7%) 9-adult.

3. Total Student Enrollments In The Districts, As Of September 1977 (Question 6)

Student enrollments in the 60 districts ranged from 6 (10.0%) with less than 500 pupils to 2 (3.3%) with 6,000 or more students. More specifically, 6 (10.0%) reported less than 500; 12 (20.0%) 500-599; 21 (35.0%) 1,000-1,999; 9 (15.0%) 2,000-2,999; 4 (6.7%) 3,000-3,999; 2 (3.3%) 4,000-4,999; 3 (5.5%) 5,000-5,999, and 2 (3.3%) 6,000 or more students and 1 (1.6%) did not answer. Enrollments in the 11 nonrespondent districts represented slightly over 15% of the total Bergen County public school enrollments. Their enrollments ranged from nearly 600 to slightly over 3,000 students.

4. Average Annual Cost Per Pupil —— 1976-77 School Year (Question 7)

8 (13.3%) of the 60 districts reported expenditures of between $1,300 - $1,599, 18 (30.0%) between $1,600 - $1, 899, 21 (35.0%) between $1,900 - $2,199, 8 (13.3%) $2,200 or more, and 5 (8.3%) did not answer. The median annual expenditure was located in the $1,900 - $2,100 bracket.

5. Chief School Administrators' Ratings Of The Status Of Major Career/Vocational Programs And Services Available To Their District Students (Questions 8-87)

Table 23 (Appendix) gives the percentages of the respondent chief school administrators checking whether various career/vocational programs and services were:

1 - not presently available to their students;

2 - below their districts' expectations;

3 - meeting their districts' expectations;

4 - not applicable to their districts' grade range; (or that)

5 - they had no basis for an opinion.

For each listed program or service, the administrators were were asked also to indicate whether additional technical assistance from the New Jersey Department of Education would be desirable. In rating these services and programs the administrators were asked to reflect their balanced perceptions of the districts' goals and objectives, the availability of personnel, space, facilities, and financial resources —— and the general effectiveness of their career/vocational programs and services.

In order to facilitate the systematic gathering of information, the administrators had been provided with a conceptual framework based on the New Jersey Department of Education, Division of Vocational Educations's "Career Development Model - A Flexible Continuum of Vocational-Technical Programs and Services." The Administrators' ratings of specific programs recommended in this model for districts with pre-school and elementary schools and middle and/or junior high schools, high schools, and with adult community continuing education schools are presented in Table 23. Services offered in all these schools and for special needs vocational/career education programs, for the handicapped and disadvantaged are also presented.

a. Programs Offered In Pre-School And Elementary Schools (Questions 8-15)

In three out of the four programs listed in Table 23, nearly two-thirds of the applicable districts in these grade ranges reported that these programs were not presently available to their students. Of the schools with such programs, the numbers of responses reporting "meeting district expectations" exceeded "below district expectations" by a factor of 2 or 3 times. The exception was "career awareness," all curriculum areas where negative responses slightly exceeded the positive ones. The overall percentage of the districts who believed additional technical assistance would be desirable was roughly about 15%.

b. Programs Offered In Middle And Junior High Schools (Questions 16-31)

For districts with schools in the applicable grade ranges, the percentages indicating that individual programs among 8 listed were not presently available to their students ranged from 12.0% for Home Economics and Consumer Education to 56.0% for Agriculture/Agribusiness/Natural Resources Education.

In seven of the eight programs, "meeting district expectations" responses exceeded "below district expectations" responses by factors ranging from 1.2 times for Consumer Education to "infinity" (4.0) for Agriculture/etc. The percentages of districts who believed additional technical assistance would be desirable ranged from 4.0% for Agriculture/etc., to 24.0% for career awareness. Other program areas where relatively large numbers of districts indicated the need for assistance were Health Occupations Orientation (16.0%), Consumer Education (12.0%), and Introduction to Vocations (16.0%).

c. Programs Offered In High Schools (Questions 32-63

For districts with high schools, the percentages indicating that any one of the 16 programs listed was not presently available to their students ranged very widely from 0.0% Home Economics, and Consumer Education to 74.3% for Agriculture/etc. For 7 of the 16 programs, over a fourth of the districts indicated non-avialability. In 15 of the

16 programs, the number of "meeting district expectations" responses exceeded "below district expectations" responses by factors ranging very widely from 1.1 times to 33.5 times for Business Education. Other than these two extremes, in the remainder of the 13 programs "meeting" responses were from 1.4 times to 12.5 greater, than "below" responses. The percentages of the districts who believed they would benefit from technical assistance in various program areas ranged from 5.7% for Agriculture/etc., to 28.6% for Consumer Education.

d. Programs Offered In Adult Community Continuing Education Schools (Questions 64-87)

For the districts with adult schools, the percentages indicating that individual programs among the 12 listed were not presently available to their students ranged from 0.0% for Business Education to 68.8% for Agriculture/etc.

"Meeting district expectations" responses exceeded "below district expectations" by factors ranging from 1.3 times for cooperative vocational education to "infinity" for Agriculture/etc., (12.5/0.0).

The percentages who believed additional technical assistance would be desirable ranged from 0.0% for Business Education to 18.8% for Health Occupations Education.

e. Services Offered In Elementary, Middle, Junior High, High Schools, And Adult Schools (Questions 88-102)

Chief school administrators were requested to rate six services which might be offered by them in elementary, middle and/or junior high, high schools, and adult schools. In 3 out of 6 services slightly over half of the districts reported that these services were not presently available to their students. These services were: Career Exploration Clubs, Career Resource Centers, and Youth Leadership Development. For the remaining three services, the percentages were Job Placement (25.0%), Career Guidance (20.0%), and Special Services for Special Needs Students (16.7%). "Meeting district expectations" responses exceeded "below district expectations" responses by factors ranging from 1.4 times (Career Resource Centers) to 5.3 times for Special Services for Special Needs Students. The percentages of districts who believed additional technical assistance in these areas would be desirable ranged from 10.0% for Career Exploration Clubs to 21.7% for Career Resource Centers.

f. Special Needs Vocational/Career Education Programs For The Handicapped And Disadvantaged (Questions 100 and 102)

The Division of Vocational Education's Career Model encompasses a range of programs and services designed to meet the vocational/career education needs of handicapped and disadvantaged pupils. Programs and services for the handicapped are directed to students ages 5-20 and for the disadvantaged from ages 14-20 (grades 6-12).

The superintendents provided overall ratings as follows:

1. Handicapped - 30.0% indicated that these programs and services were not presently available; 15.0% that they were "below district expectations"; 40.0% that they were "meeting district expectations"; and 15.0% did not answer the question.
2. Disadvantaged - 35.0% indicated that programs and services for disadvantaged students were not presently available; 11.7% that they were "below district expectations"; 30.0% that they were "meeting district expectations"; 6.7% "not applicable to district"; 1.7% "no basis for an opinion"; 15.0% did not answer the question.

16.7% and 10.0%, respectively, of the districts believed additional technical assistance from the New Jersey Department of Education would be desirable.

6. Major Reasons Why Chief Administrators Checked Certain Career/Vocational Services Were Not Presently Available To District Students Or Below District Expectations (Questions 104-109)

Overall, the percentages of the administrators who gave the following reasons were: no funds to employ qualified personnel (50.0%); low priority in the district (50.0%); lack of suitable space (45.0%); lack of funds for equipment (33.3%); question not applicable to the district (33.3%); more technical assistance needed from New Jersey Department of Education (20.0%); unable to integrate with other curricular requirements and activities (13.3%); and other (3.3%). The finding that 33.3% of the chief school administrators checked that the question was not applicable to their districts is both surprising and not readily explainable.

7. Career/Vocational Technical Programs Or Services Implemented In Districts During Past Three Years (1975-1978)

In the 60 districts, (68.3%) implemented a total of 71 individual programs and services. These did not include any implemented at Satellite Vocational Centers or Bergen County Vocational-Technical High School. Those mentioned included such items as T4C, introduction to the vocations in various grade levels, specific career training programs, job placement, consumer education, employment orientation, etc. The entire listing will be available for study by the Bergen County Superintendent and the Career Education Coordinating Council.

8. Career/Vocational Programs Or Services Planned For Possible Implementation In Next Three Years

Chief school administrators were asked to list any new programs or services that they seriously were planning to implement in their districts in the next three years. Of the 60 respondents, 24 (41.7%) listed about 40 programs and services.

Several others indicated that they were exploring possibilities. Most of the planned programs listed were couched in very general language —— e.g., "expand work study opportunities", "planning a more integrated approach to career education," "distributive education," "career awareness for all students," etc. The size and scope of the listing suggests that the planning and implementation of new career/vocational programs and services in the districts will be constrained at a modest level in the next three years unless conditions change.

9. Career/Vocational Programs Or Services With High Priority For Implementation In Various Settings

The chief school administrators were requested to list any new career/vocational programs or services that they believed should have high priority in either 1) shared district programs and services, 2) satellite vocational centers, 3) Bergen County Vocational-Technical High School; 4) Adult Community Continuing Education Schools, 5) Bergen Community College, and 6) other designated settings. Twenty-four (40%) superintendents suggested at least one program or service.

In the case of shared district programs, the suggestions of 10 superintendents included: industrial arts (wood and metal), home economics; working through the Director of Guidance in the case of a regional high school; career awareness; career guidance; expansion of life skills programs to include all classified students; career experience exploratory programs; COE & HOE, sheet metal courses, a BOCE project, expansion to all curricular areas; laboratory and computer technology.

In the case of the satellite vocational centers, the suggestions of 8 superintendents included: industrial arts - junior high level; expansion to meet needs of 7-12th grade students; foods; needle trades; animal grooming; tailoring/dressmaking; ornamental horticulture; electronics; expand additional programs of banking and finance; chemical technology; expansion of auto mechanic and auto body programs; and more beauty culture stations. In the case of the Bergen County Vocational-Technical High School, 8 superintendents suggested the following: elementary school pupils' visitations (7-8th grades) with films/slides and informational personnel; establishment of an additional specialized high school, (2 suggestions); expanded enrollments; interior decorating and design, veterinarian assistant programs; food cooperative education; and expansion of computer program; and intensive skill training for existing students.

Only 3 superintendents suggested new programs for the Adult Community Continuing Education Schools. These included: career counseling for adults returning to work force; increased offerings; and greater stress on job skills.

Three superintendents suggested the following high priority programs at Bergen Community College: banking and finance; insurance; air conditioning and refrigeration; auto mechanics; a 2-year tourism and travel program; real estate; and an expanded travel program.

Six superintendents suggested other programs which included use of the Englewood Community School for academically handicapped students, career awareness programs in grades 6-12, on-site apprentice programs, on-site business and industry training programs; and employment orientation, and vocational training programs for non-academically achieving students.

10. Superintendents' Perceptions Of The Status Of Their Districts' Career/Vocational Programs And Services (Question 112-128)

The superintendents were requested to rate three major aspects of their career/vocational programs; i.e., 1) goals and objectives and planning; 2) processes; and 3) resources by indicating whether these were either below district expectations, meeting district expectations, not applicable to the district's grade range, or that they had no basis for an opinion.

Table 24 summarizes the responses of the superintendents and their responses to each item deserves careful individual attention. Generally, "meeting district expectations" responses exceeded "below dsitrict expectations" responses by factors ranging from o to 4.1 times. However, in the case of adequacy of funds for career vocational education and for related capital outlay the balance shifted to the "below district expectations" side.

D. Employment Supply And Demand

Table 25 (Appendix) reflects the results of a review and analysis of available national, state, and county employment data. In general, this table provides: 1) scaled ratings ranging from A to E of the general national employment outlook in 1985; 2) the actual number of individuals employed nationally in 1974 and the projected employment in various occupations in 1985; 3) the percentage changes in these data from 1974 to 1985; 4) the projected number of employees in 1980 in New Jersey and in Bergen County, and 5) projected total average number of job openings for each year 1975-80. In addition, in the last 2 columns, the corresponding numbers of respondent 11th grade students and of parents interested in the various occupational programs are provided.

The source of these data for column A of the table is the U. S. Department of Labor, Bureau of Labor Statistics, Bulletin 155, Occupational Outlook Handbook, 1978-79 Edition, 1978. Columns B, C, and D data are derived from the U. S. Department of Labor, Monthly Labor Review, November 1976, Table #2. Columns E, F, and G are based upon the New Jersey Department of Labor and Industry, Division of Planning and Research's New Jersey Manpower Challenge of the Eighties.

The list of occupations included in this table reflects an attempt to match the federal and state data with the 87 vocational-technical programs contained in the survey questionnaire. This effort did not prove to be wholly successful. Though the list of 87 vocational-technical programs is not inclusive, it is believed to be representative and typical of the range of programs presently offered or planned in area vocational-technical postsecondary schools and in 2-year colleges. The list, admittedly, contains a number of relatively new and innovative programs. These programs, whose need is usually substantiated by locally conducted feasibility studies, frequently carve out new technical, paraprofessional, and skilled positions and career ladders for students. Consequently, no precise or consistant correspondence or congruence with the occupational titles or data supplied by the federal and the New Jersey Department of Labor and Industry necessarily exists. Job classifications and descriptions found in these two sources are often either highly differentiated or broad. When manpower demand data among several related sub-specialties are combined, there can be no assurance that the resultant combination is equivalent to one of the 87 programs contained in the list. In other cases, the opposite problem relates to the wide range of aptitudes, skills, education, and training encompassed under one of these broad job titles. For example, the projected demand for accountants in Bergen County could encompass slots for individuals with CPA's, graduate business degrees, bachelors' degrees, associate degrees and certificates. Accordingly, it would be very risky to make any prescriptive statements that the level of student interest in an occupational area was "too high" or "too low" relative to the current or anticipated levels of employment demand. Also, aside from the errors of inference growing out of these classification problems, there are unavoidable errors in the procedures used here to estimate occupational interests as well as those inherent in the federal and state estimation and projection techniques.

The New Jersey State Department of Labor and Industry's publication indicates an overall error of about 10% in their projections. The obvious conclusion that follows is that all data should be interpreted with extreme caution, using them to indicate approximate magnitudes. However, these limitations must be balanced against the need for reasonably reliable information and some sense of direction. The data and information obtained from the U. S. Department of Labor does provide some insights into the relationship of students and parents occupational interests and the supply of jobs nationally. The table immediately following shows the students' 30 most popular first choices of the occupational programs and the corresponding ratings of the national prospects for employment in 1985.

TABLE B

30 Most Popular Vocational-Technical Programs Chosen As Their First Choices By Students And Parents And Corresponding 1985 National Employment Outlook Ratings

	7th, 8th, 10th, 11th Grade Students First Choices	National Employment Outlook Rating 1985 1/		Parents' First Choices	National Employment Outlook Rating 1985 1/
1	Commercial Art	C	1	Business Mngmt.	C
2	Acctg. & Bookkeeping	D+	2	Acctg. & Bookkeeping	C+
3	Business Management	C	3	Real Estate & Insurance	C+
4	Theatre Art	B+	4	Business Admin.	C
5	Secretarial Science	B	5	Secretarial Science	B
6	Beauty Culture/Csmtly.	C	6	Bus. Computer Program'g	B
7	Photography	C	7	Nursing, R.N.	B+
8	Auto & Diesel Mech.	C	8	Small Business Mngmt.	C
9	Animal Science Tech.	C	9	Interior Design	C
10	Nursing, R.N.	B+	10	Banking & Finance	B+
11	Pilot Training	B	11	Medical Assistant	-
12	Communication & Brdcstg.	C	12	Hotel-Motel Rest. Mngmt.	B+
13	Interior Design	C	13	Nursing, Practical	B+
14	Architectural Bldg.Tech.	C	14	Child Care-Pre-Elm. Ed.	D+
15	Child Care-Pre-Elm. Ed.	D+	15	Commercial Art	C
16	Police Science/L.Enforc.	B	16	Key Punch Operator	E
17	Firest Technology	B	17	Communicatio & Brdcstg.	C
18	Auto Body Repair	C	18	Data Processing Tech.	B
19	Electronics Technology	B	19	Auto & Diesel Mech.	C
20	Carpentry	C	20	Heat/Air Cond/Tech	B
21	Biological Technology	B	21	Beauty Culture/Csmtly.	C
22	Medical Assistant	-	22	Police Science/L.Enforc.	B
23	Bus.Computer Programming	B	23	Commerc'l Cook & Baking	B
24	Medical Lab Technology	B	24	Photography	C
25	Business Administration	C	25	Pilot Training	B
26	Aircraft Maint. & Tech.	B+	26	Medical Lab Technology	B
27	Hotel/Motel Rest.Mngmt.	B+	27	Electronics Technology	B
28	Small Business Mngmt.	C	28	Graphic Arts & Printing	D+
29	Dental Hygiene	B+	29	Labor & Ind. Relations	B
30	Banking & Finance	B+	30	Court Reporting	B

1/ Explanation of rating scale is to be found in Table 25 in Appendix

Among the students' top 30 choices, there were 0 vocational-technical program with an "A", 6 with "B+", 8 with "B", 14 with "C", and 1 with a "D+" rating. Of these 30, 46.6% could be "expected to be good source and faster than average" or "expected to increase much faster than average." Among the parents' top 30 choices, there was also no vocational-technical program with an "A" rating, 4 with "B+, 11 with "B", 11 with "C", 2 with "D+", and 1 with an "E" rating. Of the 30, 50.0% were in the B-B+ range - only slightly higher than the percentage found among the students.

Among the total 87 vocational-technical programs listed, available information showed that almost 50% were in the A-B range. Interestingly, analysis revealed that among the top 30 first choices of the 11th grade students about half were also in this A-B range. This is a heartening finding and one that seems to reflect positively upon the quality of the vocational information, guidance and counseling they have been receiving.

At the time this report was being prepared, the New Jersey 1202 Commission, with representatives from the New Jersey State Department of Education, Higher Education, and Labor and Industry, had been intensively studying the status of available manpower supply and demand data. The Commission, in all likelihood, will confirm the perception here that whatever comprehensive data relevant to supply/demand questions is available reside in State agencies and that little systematic or comprehensive information is being developed or available at the local or county level.

One Department of Labor and Industry spokesmen recently characterized locally conducted feasibility studies as rather primitive. However, he also indicated that for the purposes of local career program planning anything the State might produce would not necessarily be any better. The efforts of the Commission to identify gaps and inadequacies in available data and to facilitate planning and cooperation among the schools and agencies at the state and local levels is to be commended.

E. Dissemination Activities Planned

Copies of the final report will be disseminated widely among the following individuals, groups, and agencies: Bergen County Superintendent of Education, Bergen County Career Education Coordinating Council, participating public and Catholic school superintendents, and the New Jersey Department of Education, Division of Vocational Education, and the leadership of other concerned state and county agencies and associations.

As soon as available, each participating county school district will receive a printout of the responses of their districts' students and parents and related explanatory materials. The Bergen County Career Education Coordinating Council and the Bergen County Career Education Coordinator will assume a continuing responsibility for consultation and follow-up of the study. The program director will also be available for consultation as needed.

G. Strategies Or Activities Employed To Eliminate Sex Bias And Sex Role Stereotyping

The basic goal of this project was to obtain objective data regarding the occupational interests of students and parents, the perception of chief school administrators regarding the status and priorities of their career/vocational programs and services, and the relationship of these findings to manpower supply and demand. Data was obtained specifically, analyzed and highlighted regarding male and female students' and parents' occupational interests. These, along with the superintendents' perceptions, serve to underscore the extent to which possible sex bias and sex role stereotyping has changed, if at all, since the earlier study completed in 1972. In effect, the data will provide interested officials and others with quantitative support for their efforts in this important area. The current data shows some increased shifting of female students and parents into occupations previously regarded as traditionally male reserves. However, overall, most of the females continued to select the more traditionally "female" occupational areas.

H. Summary, Conclusions, and Resommendations

For the convenience of the reader, this section is to be found in the beginning of the report.

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APPENDIX

Tables 1 through 25 and

Survey Instruments and letters

Table 1

LIST OF MUNICIPALITIES COMPRISING THE SIX BERGEN COUNTY GEOGRAPHICAL SECTORS 1/

SECTOR 1 - SOUTHWEST BERGEN

- Carlstadt
- East Rutherford
- Hasbrouck Heights
- Little Ferry
- Lyndhurst
- Moonachie
- North Arlington
- Rutherford
- South Hackensack
- Teterboro
- Wallington
- Wood-Ridge

SECTOR 2 - SOUTHEAST BERGEN

- Cliffside Park
- Edgewater
- Fairview
- Fort Lee
- Leonia
- Palisades Park
- Ridgefield
- Ridgefield Park

SECTOR 3 - CENTRAL BERGEN

- Bogota
- Elmwood Park
- Fair Lawn
- Garfield
- Hackensack
- Lodi
- Maywood
- New Milford
- Oradell
- Paramus
- River Edge
- Rochelle Park
- Saddle Brook
- Teaneck

SECTOR 4 - NORTHERN VALLEY

- Alpine
- Bergenfield
- Closter
- Cresskill
- Demarest
- Dumont
- Englewood
- Englewood Cliffs
- Harrington Park
- Haworth
- Northvale
- Norwood
- Old Tappan
- Rockleigh
- Tenafly

SECTOR 5 - PASCACK VALLEY

- Emerson
- Hillsdale
- Montvale
- Park Ridge
- River Vale
- Washington Township
- Westwood
- Woodcliff Lake

SECTOR 6 - NORTHWEST BERGEN

- Allendale
- Franklin Lakes
- Glen Rock
- Ho-Ho-Kus
- Mahwah
- Midland Park
- Oakland
- Ramsey
- Ridgewood
- Saddle River
- Upper Saddle River
- Waldwick
- Wyckoff

1/ Based on a geographical breakdown developed by the County Planning Board, County of Bergen and used in their "1977 Planner's Data Book For Bergen County."

Students' Interest In Enrolling In Liberal Arts & Sciences Programs At A 2-Year College Transfer Program Or A 4-Year College/University

First Choices of 7th, 8th, 10th, & 11th Grade Students

	Total Sample %	Est. Total	Total Public Schools Sample %	Est. Total	Total Catholic Schools Sample %	Est. Total	Total Male Sample %	Est. Total	Total Female Sample %	Est. Total
Not interested in enrolling	15.5	9,378	16.2	8,455	11.0	913	15.7	4,807	15.2	4,542
Agriculture and Natural Resources	1.5	908	1.5	783	1.5	125	2.1	643	0.9	269
Architecture and Environmental Design and Planning	3.6	2,178	3.5	1,827	3.6	299	5.0	1,531	2.1	628
Area Studies (Asian, African, etc.)	0.3	182	0.3	157	0.1	8	0.3	92	0.3	90
Biological Sciences	3.8	2,299	3.9	2,036	2.9	241	3.7	1,133	3.8	1,135
Business and Management	7.2	4,356	6.7	3,497	10.6	880	8.6	2,633	5.8	1,733
Communications (Journalism, Advertising, Radio/TV,etc.)	3.6	2,178	3.3	1,722	5.3	440	3.0	919	4.2	1,255
Computer and Information Sciences	1.6	968	1.6	835	1.6	133	2.2	674	1.1	329
Education	2.7	1,634	2.6	1,357	3.3	274	0.8	245	4.6	1,375
Engineering	4.1	2,481	3.8	1,983	5.6	465	7.4	2,266	0.6	179
Fine and Applied Arts	4.6	2,783	4.6	2,401	4.9	407	2.4	735	6.9	2,062
Foreign Languages	1.0	605	1.1	574	0.6	50	0.4	122	1.7	508
Health and Medical Professions	9.2	5,566	8.8	4,593	11.8	980	6.5	1,990	11.9	3,556
Home Economics	1.0	605	1.0	522	1.2	100	0.3	92	1.7	508
Law	5.1	3,086	4.5	2,348	8.5	706	6.1	1,868	4.0	1,195
Letters (English, Literature, Writing, Philosophy)	1.1	666	1.1	574	0.9	75	0.5	153	1.7	508
Library Science	0.1	61	0.1	52	0.0	0	0.1	31	0.1	30
Mathematics	1.9	1,150	1.8	939	2.4	199	2.2	674	1.6	478
Military Sciences	1.1	666	1.0	522	1.4	116	1.9	582	0.2	60
Physical Sciences (Physics, Chemistry, Geology,etc.)	1.9	1,150	1.9	992	1.8	149	2.5	766	1.3	388
Psychology	2.1	1,271	2.1	1,096	1.9	158	0.7	214	3.5	1,046
Public Service and Affairs (including Social Work, Law Enforcement and Corrections, etc.)	1.2	726	1.1	574	2.1	174	1.4	429	1.0	299
Social Sciences (Sociology, Political Science, Economics	0.6	363	0.7	365	0.5	42	0.7	214	0.6	179
Theology (Religion)	0.1	61	0.1	52	0.2	17	0.1	31	0.2	60
Interdisciplinary Studies	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Not sure of major	7.5	4,538	7.8	4,071	5.2	432	7.4	2,266	7.6	2,271
No Answer	17.7	10,709	18.7	9,760	11.1	922	18.0	5,512	17.3	5,169
TOTAL	100.0	60,052	100.0	52,194	100.0	8,303	100.0	30,621	100.0	29,881

NOTE:

Columns of data do not add up to exactly 100% due to rounding of percentages.

Students' Interest In Enrolling In Liberal Arts & Sciences Programs At A 2-Year College Transfer Program Or A 4-Year College/University

Second Choices of 7th, 8th, 10th, & 11th Grade Students

	Total Sample %	Est. Total	Total Public Schools Sample %	Est. Total	Total Catholic Schools Sample %	Est. Total	Total Male Sample %	Est. Total	Total Female Sample %	Est. Total
Not interested in enrolling	16.3	9,862	17.1	8,925	11.4	947	16.5	5,052	16.2	4,841
Agriculture and Natural Resources	1.8	1,089	1.9	992	1.2	100	2.2	674	1.4	418
Architecture and Environmental Design and Planning	2.7	1,634	2.6	1,357	3.6	299	3.4	1,041	1.9	568
Area Studies (Asian, African, etc.)	0.3	182	.4	209	0.3	25	0.3	92	0.4	120
Biological Sciences	2.8	1,694	2.8	1,461	3.4	282	3.0	919	2.7	807
Business and Management	4.5	2,723	4.1	2,140	6.8	565	5.9	1,087	3.1	926
Communications (Journalism, Advertising, Radio/TV,etc.)	3.5	2,118	3.3	1,722	5.3	440	3.3	1,010	3.7	1,106
Computer and Information Sciences	2.3	1,392	2.2	1,148	3.2	266	3.4	1,041	1.2	359
Education	2.7	1,634	2.6	1,357	3.8	316	1.2	367	4.3	1,285
Engineering	2.8	1,694	2.7	1,409	3.9	324	5.3	1,623	0.3	90
Fine and Applied Arts	2.7	1,634	2.6	1,357	3.3	274	1.5	459	4.0	1,195
Foreign Languages	1.3	787	1.3	679	1.3	108	0.7	214	1.9	568
Health and Medical Professions	3.1	1,876	2.9	1,514	4.7	390	1.8	551	4.5	1,345
Home Economics	1.3	787	1.2	626	1.3	108	0.5	153	2.1	628
Law	4.9	2,965	4.5	2,349	7.3	606	6.0	1,837	3.7	1,106
Letters (English, Literature, Writing, Philosophy)	1.4	847	1.4	731	2.0	166	0.5	153	2.4	717
Library Science	0.1	61	0.1	52	0.0	0	0.1	31	0.1	30
Mathematics	2.6	1,573	2.7	1,409	2.3	191	2.9	888	2.3	687
Military Sciences	0.9	545	0.9	470	1.1	91	1.6	490	0.3	90
Physical Sciences (Physics, Chemistry, Geology,etc.)	2.5	1,513	2.5	1,305	2.5	208	3.1	949	1.9	568
Psychology	3.3	1,997	3.4	1,775	3.1	257	1.6	490	5.1	1,524
Public Service and Affairs (including Social Work, Law Enforcement and Corrections, etc.)	2.3	1,392	2.1	1,096	3.5	291	1.5	459	3.2	956
Social Sciences (Sociology, Political Science, Economics)	1.3	787	1.2	626	1.5	125	1.3	398	1.3	388
Theology (Religion)	0.2	121	0.2	104	0.2	17	0.2	61	0.2	60
Interdisciplinary Studies	0.1	61	0.1	52	0.2	17	0.0	0	0.1	30
Not sure of major	10.3	6,232	10.6	5,533	8.9	739	10.8	3,307	9.9	2,958
No Answer	21.8	13,189	22.9	11,952	14.0	1,162	21.4	6,553	22.0	6,574
TOTAL	100.0	60,502	100.0	52,194	100.0	8,303	100.0	30,621	100.0	29,881

NOTE:
Columns of data do not add up to exactly 100% due to rounding of percentages.

Table 4

Students' Interest In Enrolling In Liberal Arts & Sciences Programs At A 2-Year College Transfer Program Or A 4-Year College/University

First Choices of 7th, 8th, 10th, & 11th Grade Students

	7th GRADES		8th GRADES		10th GRADES		11th GRADES	
	Respon. Sample %	Est. Total	Respon. Sample %	Est. Total	Respon. Sample %	Est. Total	Respon. Sample %	Est. Total
Not interested in enrolling	13.9	2,002	16.4	2,414	16.5	2,631	14.9	2,300
Agriculture and Natural Resources	1.5	216	1.2	177	2.0	319	1.4	216
Architecture and Environmental Design and Planning	4.5	648	4.3	633	3.3	526	2.0	309
Area Studies (Asian, African, etc.)	0.5	72	0.3	44	0.4	64	0.0	0
Biological Sciences	2.8	403	4.2	618	4.5	717	3.5	540
Business and Management	4.1	591	5.5	809	7.9	1,260	11.5	1,775
Communications (Journalism, Advertising, Radio/TV, etc.)	3.2	461	3.8	559	3.2	510	4.2	648
Computer and Information Sciences	1.8	259	1.4	206	1.9	303	1.4	216
Education	3.7	533	2.4	353	2.3	367	2.4	370
Engineering	4.1	591	3.7	545	4.0	638	4.5	695
Fine and Applied Arts	5.0	720	4.8	706	4.5	717	4.2	648
Foreign Languages	1.2	173	0.9	132	0.7	112	1.3	201
Health and Medical Professions	10.7	1,541	9.8	1,442	9.2	1,467	7.0	1,081
Home Economics	1.8	259	0.7	103	0.7	112	0.9	139
Law	5.8	835	6.0	883	4.1	654	4.4	679
Letters (English, Literature, Writing, Philosophy)	1.1	158	1.0	147	1.2	191	1.2	185
Library Science	0.1	14	0.0	0	0.1	16	0.1	15
Mathematics	1.8	259	2.3	339	1.7	271	1.7	262
Military Sciences	1.1	158	1.3	191	1.1	175	0.8	123
Physical Sciences (Physics, Chemistry, Geology, etc.)	2.4	346	2.2	324	1.8	287	1.2	185
Psychology	1.3	187	1.8	265	2.9	462	2.3	355
Public Service and Affairs (including Social Work, Law Enforcement and Corrections, etc.)	0.6	86	1.0	147	1.8	287	1.4	216
Social Sciences (Sociology, Political Science, Economics, etc.)	0.4	58	0.7	103	0.3	48	1.1	170
Theology (Religion)	0.1	14	0.1	15	0.3	48	0.0	0
Interdisciplinary Studies	0.0	0	0.0	0	0.0	0	0.1	15
Not sure of major	10.3	1,484	9.2	1,354	6.2	989	3.9	602
No answer	16.2	2,333	15.1	2,222	17.3	2,758	22.4	3,458
TOTAL	100.0	14,403	100.0	14,718	100.0	15,944	100.0	15,437

NOTE:

Columns of data do not add up to exactly 100% due to rounding of percentages.

Students' Interest In Enrolling In Liberal Arts & Sciences Programs At A 2-Year College Transfer Program Or A 4-Year College/University

Second Choices of 7th, 8th, 10th, & 11th Grade Students

	7th GRADES		8th GRADES		10th GRADES		11th GRADES	
	Respon. Sample %	Est. Total	Respon. Sample %	Est. Total	Respon. Sample %	Est. Total	Respon. Sample %	Est. Total
Not interested in enrolling	14.3	2,060	17.3	2,546	17.5	2,790	15.9	2,454
Agriculture and Natural Resources	1.7	245	1.6	235	2.3	367	1.6	247
Architecture and Environmental Design and Planning	3.2	461	2.7	397	2.5	399	2.3	355
Area Studies (Asian, African, etc.)	0.3	43	0.3	44	0.5	80	0.3	46
Biological Sciences	2.3	331	2.9	427	3.6	574	2.4	370
Business and Management	3.1	446	3.8	559	4.7	749	6.5	1,003
Communications (Journalism, Advertising, Radio/TV, etc.)	3.7	533	3.8	559	3.2	510	3.5	540
Computer and Information Sciences	1.8	259	2.4	353	2.0	319	3.1	479
Education	4.0	576	2.4	353	2.3	367	2.3	355
Engineering	3.4	490	2.3	339	3.2	510	2.5	386
Fine and Applied Arts	2.6	374	3.2	471	2.8	446	2.3	355
Foreign Languages	1.4	202	1.4	206	1.2	191	1.1	170
Health and Medical Professions	3.8	547	4.1	603	2.3	367	2.2	340
Home Economics	1.9	274	1.4	206	1.2	191	0.5	77
Law	5.8	835	5.9	868	4.3	686	3.2	494
Letters (English, Literature, Writing, Philosophy)	1.3	187	1.4	206	1.7	271	1.2	185
Library Science	0.2	29	0.0	0	0.0	0	0.0	0
Mathematics	2.4	346	2.4	353	3.4	542	2.4	370
Military Sciences	1.2	173	0.7	103	1.1	175	0.8	123
Physical Sciences (Physics, Chemistry, Geology, etc.)	2.7	389	2.4	353	2.1	335	2.8	432
Psychology	2.1	302	3.2	471	3.8	606	4.3	664
Public Service and Affairs (including Social Work, Law Enforcement and Corrections, etc.)	1.7	245	1.6	235	3.1	494	2.9	448
Social Sciences (Sociology, Political Science, Economics, etc.)	0.6	86	0.7	103	1.5	239	2.4	370
Theology (Religion)	0.3	43	0.0	0	0.3	48	0.2	31
Interdisciplinary Studies	0.1	14	0.1	15	0.1	16	0.1	15
Not sure of major	13.5	1,944	12.5	1,840	8.3	1,323	6.8	1,050
No answer	20.7	2,981	19.3	2,841	20.9	3,332	26.4	4,075
TOTAL	100.0	14,403	100.0	14,718	100.0	15,944	100.0	15,937

NOTE:

Columns of data do not add up to exactly 100% due to rounding of percentages.

TABLES 6 - 10 WERE DELETED DUE TO IRREPRODUCIBILITY
PRIOR TO BEING SUBMITTED TO THE ERIC DOCUMENT
REPRODUCTION SERVICE.

Table 11

Thirty Most Popular Occupational Areas Chosen By 7th, 8th, 10th, & 11th Grade Male And Female Public And Catholic Schools Students As Their First Choices From 87 Vocational-Technical Programs And Courses Leading To Associate Degrees, Certificates, And Other Awards

	Occupational Areas	Total Male Sample %	Est. Total	Occupational Areas	Total Female Sample %	Est. Total
1.	Auto & Diesel Mechanics	4.9	1,500	Secretarial Science	5.5	1,643
2.	Business Management	4.1	1,255	Beauty Culture & Cosmetology	5.4	1,614
3.	Pilot Training	3.4	1,041	Commercial Art	5.0	1,494
4.	Accounting & Bookkeeping	3.3	1,010	Theatre	4.8	1,434
5.	Architectural Bldg. Tech	3.1	949	Nursing, R.N.	4.6	1,375
6.	Auto Body Repair	2.7	827	Interior Design	3.7	1,106
7.	Electronics Technology	2.7	827	Child Care-Pre-Elementary Education	3.4	1.016
8.	Police Science (Law Enforcement)	2.6	796	Accounting & Bookkeeping	3.3	986
9.	Carpentry	2.4	735	Photography	3.2	956
10.	Commercial Art	2.2	674	Communication & Broadcasting	2.0	598
11.	Forest Technology	2.2	674	Business Management	1.8	538
12.	Photography	2.1	643	Medical Assistant	1.5	448
13.	Communication & Broadcasting	1.8	551	Social Work Assistant	1.3	388
14.	Aircreaft Maintenance Tech	1.8	551	Biological Technology	1.2	359
15.	Business Computer Programming	1.4	429	Physical Therapy Assistant	1.1	329
16.	Hotel-Motel Restaurant Mgmt.	1.4	429	Forest Technology	1.1	329
17.	Biological Technology	1.4	429	Court Reporting	1.0	299
18.	Business Administration	1.2	367	Medical Laboratory Technology	1.0	299
19.	Animal Science Technician	1.2	367	Dental Assistant	0.9	269
20.	Medical Laboratory Technology	1.2	367	Dental Hygiene	0.9	269
21.	Electricity, Industrial	1.2	367	Nursing, Practical	0.9	269
22.	Small Business Management	1.1	337	Police Science (Law Enforcement)	0.9	269
23.	Banking & Finance	0.9	276	Teacher's Aide	0.9	269
24.	Medical Assistant	0.9	276	Business Administration	0.8	239
25.	Drafting & Design Tech	0.9	276	Commercial Cooking & Baking	0.8	239
26.	Data Processing Technology	0.8	245	Business Computer Programming	0.8	239
27.	Theatre Art	0.8	245	Vocational Teacher Training	0.7	209
28.	Mechanical Technology	0.8	245	Banking & Finance	0.6	179
29.	Dental Hygiene	0.7	214	Small Business Management	0.6	179
30.	Chemical Technology	0.7	214	Architectural Bldg. Technology	0.6	179

TABLE 12 WAS DELETED FROM THIS DOCUMENT
PRIOR TO ITS BEING SUBMITTED TO THE ERIC
DOCUMENT REPRODUCTION SERVICE. THE SIZE
OF THE TYPE MADE THE TABLE IRREPRODUCIBLE

Table 13

Thirty Most Popular Occupational Areas Chosen By 7th, 8th, 10th, & 11th Grade Public And Catholic School Students As Their Second Choices From 87 Vocational-Technical Programs And Courses Leading To Associate Degrees, Certificates And Other Awards

Occupational Areas	Total Sample %	Est. Total	Occupational Areas	Total Public School Sample %	Est. Total	Occupational Areas	Total Catholic School Sample %	Est. Total
1. Photography	3.3	1,997	Photography	3.2	1,670	Photography	4.0	332
2. Business Management	2.6	1,573	Business Management	2.5	1,305	Business Management	3.0	249
3. Interior Design	2.2	1,331	Interior Design	2.3	1,200	Commerical Art	2.5	208
4. Commercial Art	2.1	1,271	Commercial Art	2.0	1,044	Auto & Diesel Mechanics	2.5	208
5. Child Care-Pre-Elementary Ed	2.1	1,271	Child Care-Pre-Elementary Ed	2.0	1,044	Child Care-Pre-Elementary Ed	2.4	199
6. Theatre Art	1.8	1,089	Theatre Art	1.8	939	Business Administration	2.3	191
7. Beauty Culture & Cosmetology	1.7	1,029	Beauty Culture & Cosmetology	1.7	887	Communication & Broadcasting	2.2	183
8. Auto & Diesel Mechanics	1.7	1,029	Auto Body Repair	1.7	887	Secretarial Science	2.2	183
9. Carpentry	1.7	1,029	Forest Technology	1.7	887	Police Science (Law Enforcement)	2.2	183
10. Accounting & Bookkeeping	1.6	968	Auto & Diesel Mechanics	1.6	835	Beauty Culture & Cosmetology	2.1	174
11. Auto Body Repair	1.6	968	Carpentry	1.6	835	Small Business Management	2.1	174
12. Forest Technology	1.6	968	Accounting & Bookkeeping	1.5	783	Medical Assistant	2.1	174
13. Communication & Broadcasting	1.5	908	Communication & Broadcasting	1.4	731	Accounting & Bookkeeping	1.8	150
14. Business Administration	1.4	847	Scretarial Science	1.3	679	Theatre Art	1.7	141
15. Secretarial Science	1.4	847	Animal Science Technician	1.3	679	Aircraft Maint. & Technology	1.7	141
16. Police Science (Law Enforcement)	1.4	847	Aircraft Maint. & Technology	1.3	679	Carpentry	1.7	141
17. Animal Science Technician	1.3	787	Police Science (L/Enforcement)	1.3	679	Interior Design	1.5	125
18. Medical Assistant	1.3	787	Business Administration	1.2	626	Pilot Training	1.4	116
19. Aircraft Maint. & Technology	1.3	787	Hotel-Motel Restaurant Mgmt.	1.2	626	Banking & Finance	1.3	108
20. Hotel-Motel Restaurant Mgmt.	1.2	726	Medical Assistant	1.2	626	Hotel-Motel Restaurant Mgmt.	1.3	108
21. Small Business Management	1.2	726	Biological Technology	1.2	626	Biological Technology	1.3	108
22. Biological Technology	1.2	726	Small Business Management	1.1	574	Social Work Assistant	1.3	108
23. Business Computer Programming	1.1	666	Nursing, R.N.	1.1	574	Animal Science Technician	1.3	108
24. Nursing, R.N.	1.1	666	Business Computer Programming	1.0	522	Architectural Bldg. Technology	1.3	108
25. Pilot Training	1.0	650	Architectural Bldg. Tech	1.0	522	Data Processing Technology	1.1	91
26. Architectural Bldg. Technology	1.0	650	Drafting & Design Tech	1.0	522	Medical Laboratory Technology	1.1	91
27. Draft & Design Technology	1.0	650	Electronics Technology	1.0	522	Nursing, R.N.	1.1	91
28. Social Work Assistant	1.0	650	Social Work Assistant	1.0	522	Nursing, Practical	1.0	83
29. Medical Laboratory Technology	0.9	545	Pilot Training	0.9	470	Real Estate & Insurance	0.9	75
30. Electronics Technology	0.9	545	Medical Laboratory Technology	0.9	470	Auto Body Repair	0.9	75

Table 14

Thirty Most Popular Occupational Areas Chosen By 7th, 8th, 10th, & 11th Grade Male And Female Public And Catholic School Students As Their Second Choices From 87 Vocational-Technical Programs And Courses Leading To Associate Degrees, Certificates, And Other Awards

	Occupational Areas	Total Male Sample %	Est. Total	Occupational Areas	Total Female Sample %	Est. Total
1.	Auto & Diesel Mechanics	3.3	1,010	Photography	4.2	1,255
2.	Business Management	3.2	980	Interior Design	4.0	1,195
3.	Auto Body & Repair	3.2	980	Child Care-Pre-Elementary Education	4.0	1,195
4.	Carpentry	3.1	949	Beauty Culture & Cosmetology	3.4	1,016
5.	Photography	2.4	735	Commercial Art	3.2	956
6.	Aircraft Maintenance & Technology	2.4	735	Theatre Art	2.9	867
7.	Forest Technology	2.1	643	Secretarial Science	2.8	837
8.	Drafting & Design Technology	1.8	551	Nursing, R.N.	2.2	657
9.	Electronics Technology	1.8	551	Accounting & Bookkeeping	2.0	598
10.	Police Science (Law Enforcement)	1.8	551	Business Management	1.9	568
11.	Business Administration	1.7	521	Animal Science Technician	1.9	568
12.	Hotel-Motel Restaurant Mgmet.	1.7	521	Social Work Assistant	1.8	538
13.	Communication & Broadcasting	1.6	490	Medical Assistant	1.7	508
14.	Architectural Bldg. Technology	1.6	490	Teacher's Aide	1.6	478
15.	Pilot Training	1.5	459	Communication & Broadcasting	1.4	418
16.	Small Business Management	1.5	459	Nursing, Practical	1.3	388
17.	Nuclear Technology	1.3	398	Physical Therapy Assistant	1.2	359
18.	Biological Technology	1.3	398	Business Administration	1.1	329
19.	Electricity, Industrial	1.2	367	Dental Assistant	1.1	329
20.	Accounting & Bookkeeping	1.1	337	Biological Technology	1.1	329
21.	Business Computer Programming	1.1	337	Police Science (Law Enforcement)	1.1	329
22.	Fire-Fighting & Safety Technology	1.1	337	Commercial Cooking & Baking	1.0	299
23.	Commercial Art	1.0	306	Business Computer Programming	1.0	299
24.	Medical Assistant	1.0	306	Medical Laboratory Technology	1.0	299
25.	Banking & Finance	0.9	276	Forest Technology	1.0	299
26.	Data Processing Technology	0.9	276	Small Business Management	0.9	269
27.	Mechanical Technology	0.9	276	Dental Hygiene	0.9	269
28.	Theatre Art	0.8	245	Banking & Finance	0.8	269
29.	Medical Laboratory Technology	0.8	245	Data Processing Technology	0.8	269
30.	Machine Shop	0.8	245	Recreation Program Leadership	0.8	269

TABLES 15 - 21 WERE DELETED FROM THIS DOCUMENT BECAUSE THEY WERE IRREPRODUCIBLE PRIOR TO BEING SUBMITTED TO THE ERIC DOCUMENT REPRODUCTION SERVICE

Table 22

Numbers And Percentages Of Parents Interested In Educational Programs And Courses By Type Of Institution In Which They Would Like To Enroll

	Total Respondent Male & Female Parents		Total Respondent Public School Male & Female Parents		Total Respondent Catholic School Male & Female Parents		Total Respondent Male Parents		Total Respondent Female Parents	
	No.	% of 27,023	No.	% of 21,680	No.	% of 5,343	No.	% of 12,770	No.	% of 14,253
Bergen County Vocational-Technical Adult School (Evenings)	1,831	6.8	1,453	6.7	378	7.1	877	6.9	954	6.7
Adult Community Continuing Education Schools	1,533	5.7	1,248	5.8	285	5.3	490	3.8	1,043	7.3
Bergen Community College (Liberal Arts Transfer Program)	1,045	3.9	847	3.9	198	3.7	375	2.9	670	4.7
Bergen Community College (Career Vocational Program)	1,804	6.7	1,423	6.6	381	7.1	545	4.3	1,259	8.8
Some Other 2-Year College	291	1.1	239	1.1	52	1.0	114	0.9	177	1.2
Four Year College/University	1,178	4.4	964	4.4	214	4.0	474	3.7	704	4.9
Private Business/Technical Vocational School	402	1.5	306	1.4	96	1.8	202	1.6	200	1.4
Some Other School	615	2.3	472	2.2	143	2.7	261	2.0	354	2.5

NOTE:

The remainder of these respondent groups checked that they were not interested, or did not answer the questions regarding preferred location.

TABLE 23

CHIEF SCHOOL ADMINISTRATOR'S RATINGS OF THE STATUS OF MAJOR PRE-SCHOOL, ELEMENTARY, MIDDLE SCHOOL AND JUNIOR HIGH SCHOOL CAREER/VOCATIONAL PROGRAMS AVAILABLE TO DISTRICT STUDENTS WITHIN THE DISTRICT OR AT SATELLITE VOCATIONAL CENTERS, BERGEN VOCATIONAL TECHNICAL HIGH SCHOOL/ADULT SCHOOL, ETC.

PROGRAMS & SERVICES WITHIN DISTRICT OR AVAILABLE AT OTHER FACILITIES	GRADE RANGE	NOT PRESENT. AVAIL. TO STUDENTS	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTATIONS	NOT APPLICABLE TO DISTRICT'S GRADE RANGE	NO BASIS FOR AN OPINION	N/A	TOTAL	ADD'L TECH. ASS'T FROM N.J. DEPT. OF EDUCATION DESIRABLE YES
DISTRICTS WITH PRE-SCHOOL AND ELEMENTARY SCHOOLS		%	%	%	%	%	%	%	%
Home Economics/ Consumer Ed.	K-6	67.3	5.5	16.4	7.3	0.0	3.6	100%	14.5
Industrial Arts	K-6	69.1	3.6	16.4	7.3	0.0	3.6	100%	10.9
Career Awareness (All curriculum areas)	5-6	38.2	25.5	21.8	5.5	1.8	7.2	100%	21.8
Technology for Children	K-6	61.8	9.1	18.2	5.5	3.6	1.8	100%	21.8
DISTRICTS WITH MIDDLE AND/OR JUNIOR HIGH SCHOOLS									
Agriculture/Agribusiness/ Natural Resources Ed.	Grade 9	56.0	0.0	4.0	24.0	0.0	16.0	100%	4.0
Business Education	7-9	36.0	4.0	28.0	20.0	0.0	12.0	100%	4.0
Health Occupations Orientation	7-9	36.0	12.0	16.0	20.0	4.0	12.0	100%	16.0
Home Economics and Consumer Education	6-9	12.0	12.0	44.0	20.0	0.0	12.0	100%	8.0
Industrial Arts	6-9	16.0	8.0	44.0	20.0	0.0	12.0	100%	4.0
Introduction to Vocations	6-9	28.0	16.0	24.0	20.0	0.0	12.0	100%	16.0
Career Awareness (all Curriculum areas)	7-9	16.0	28.0	24.0	20.0	0.0	12.0	100%	24.0
Consumer Education	6-9	24.0	20.0	24.0	20.0	0.0	12.0	100%	12.0

NOTE: ALL ROW TOTALS MAY NOT ADD TO EXACTLY 100% DUE TO ROUNDING

TABLE 23 (continued)

CHIEF SCHOOL ADMINISTRATOR'S RATINGS OF THE STATUS OF MAJOR CAREER/VOCATIONAL SERVICES AVAILABLE TO DISTRICT STUDENTS WITHIN THE DISTRICT OR AT SATELLITE VOCATIONAL CENTERS, BERGEN VOCATIONAL TECHNICAL HIGH SCHOOL/ADULT SCHOOL ETC.

PROGRAMS AND SERVICES	GRADE RANGE	NOT PRESENT. AVAIL. TO STUDENTS	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTATIONS	NOT APPLICABLE TO DISTRICT'S GRADE RANGE	NO BASIS FOR AN OPINION	N/A	TOTAL	ADD.L TECH. ASS'T FROM N.J. DEPT. OF EDUCATION DESIRABLE
									YES
SERVICES OFFERED IN ELEMENTARY, MIDDLE JR. HIGH, HIGH SCHOOLS & ADULT SCHOOLS		%	%	%	%	%	%	%	%
Career Exploration Clubs	K-12	51.7	11.7	23.3	1.7	1.7	10.0	100%	10.0
Career Guidance	K-12	20.0	25.0	48.3	0.0	0.0	6.6	100%	20.0
Career Resource Center	K-12	56.7	13.3	18.3	1.7	0.0	10.0	100%	21.7
Job Placement	9-12 16 yrs. & above	25.0	20.0	30.0	13.3	0.0	11.6	100%	11.7
Special Services for Special Needs Students	6-adult	16.7	11.7	61.7	1.7	0.0	8.3	100%	15.0
Youth Leadership Development	6-adult	56.7	10.0	18.3	1.7	5.0	8.3	100%	13.3
SPECIAL NEEDS VOCATIONAL/CAREER EDUCATION PROGRAMS FOR THE HANDICAPPED									
ALL PROGRAMS AND SERVICES LISTED IN MODEL	Ages 5-20	30.0	15.0	40.0	0.0	0.0	15.0	100%	16.7
SPECIAL NEEDS VOCATIONAL/CAREER EDUCATION PROGRAMS FOR THE DISADVANTAGED									
ALL PROGRAMS AND SERVICES LISTED IN MODEL	Grades 6-12 Ages 14-20	35.0	11.7	30.0	6.7	1.7	15.0	100%	10.0

NOTE: ALL ROW TOTALS MAY NOT ADD TO EXACTLY 100% DUE TO ROUNDING.

TABLE 23 (continued)

CHIEF SCHOOL ADMINISTRATOR'S RATINGS OF THE STATUS OF MAJOR HIGH SCHOOL CAREER/VOCATIONAL PROGRAMS AVAILABLE TO DISTRICT STUDENTS WITHIN THE DISTRICT OR AT SATELLITE VOCATIONAL CENTERS, BERGEN VOCATIONAL TECHNICAL HIGH SCHOOL/ADULT SCHOOL, ETC.

PROGRAMS & SERVICES WITHIN DISTRICT OR AVAILABLE AT OTHER FACILITIES	GRADE RANGE	NOT PRESENT AVAIL. TO STUDENTS	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTATIONS	NOT APPLICABLE TO DISTRICT'S GRADE RANGE	NO BASIS FOR AN OPINION	N/A	TOTAL	ADD'L TECH. ASS'T FROM N.J. DEPT. OF EDUCATION DESIRABLE YES
DISTRICTS WITH HIGH SCHOOLS		%	%	%	%	%	%	%	%
Agriculture/Agribusiness/Natural Resources Education	9-12	74.3	2.9	11.4	5.7	0.0	5.7	100%	5.7
Business Education	9-12	0.0	2.9	97.1	0.0	0.0	0.0	100%	20 0
Cooperative Vocational Ed. (Agriculture, Business & Office, Distributive, Health, Home Economics & Industrial Education)	9-12	5.7	8.6	85.7	0.0	0.0	0.0	100%	14.3
Distributive Education	10-12	20.0	5.7	71.4	0.0	0.0	2.8	100%	20.0
Employment Orientation	9-12	22.9	37.1	40.0	0.0	0.0	0.0	100%	22.9
Health Occupations Ed.	9-12	31.4	22.9	40.0	0.0	2.9	2.8	100%	20.0
Health Occupations Orientation	9-12	28.6	25.7	37.1	0.0	2.9	5.7	100%	20.0
Home Economics & Consumer Education	9-12	0.0	5.7	91.4	0.0	0.0	2.8	100%	14.3
Industrial Arts	9-12	0.0	8.6	91.4	0.0	0.0	0.0	100%	20.0
Intensive Ed. Preparation	12	42.9	5.7	42.9	0.0	5.7	2.8	100%	17.1
Intensive Occupational Prep.	9-12	45.7	22.9	20.0	0.0	8.6	2.8	100%	25.7
Introduction to Vocations	9-10	34.3	25.7	37.1	2.9	0.0	0.0	100%	17.1
Technical Education	11-12	37.1	14.3	45.7	0.0	2.9	0.0	100%	28.6
Vocational Industrial Ed.	9-12	17.1	8.6	71.4	0.0	0.0	2.8	100%	14.3
Career Awareness (all curriculum areas)	9-12	5.7	42.9	48.6	0.0	2.9	0.0	100%	25.7
Consumer Education	9-12	5.7	28.6	62.9	0.0	0.0	2.8	100%	28.6

NOTE: ALL ROW TOTALS MAY NOT ADD TO EXACTLY 100% DUE TO ROUNDING

TABLE 23 (continued)

CHIEF SCHOOL ADMINISTRATOR'S RATINGS OF THE STATUS OF MAJOR ADULT COMMUNITY CONTINUING EDUCATION SCHOOLS CAREER/VOCATIONAL PROGRAMS AVAILABLE TO DISTRICT STUDENTS WITHIN THE DISTRICT OR AT SATELLITE VOCATIONAL CENTERS, BERGEN VOCATIONAL TECHNICAL HIGH SCHOOL/ADULT SCHOOL, ETC.

PROGRAMS & SERVICES WITHIN DISTRICT OR AVAILABLE AT OTHER FACILITIES	GRADE RANGE	NOT PRESENT. AVAIL. TO STUDENTS	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTATIONS	NO BASIS FOR AN OPINION	N/A	TOTAL	ADD'L TECH. ASS'T FROM N.J. DEPT. OF EDUCATION DESIRABLE YES
ADULT COMMUNITY CONTINUING EDUCATION SCHOOLS		%	%	%	%	%	%	%
Agriculture/Agribusiness Natural Resources Education	Adult	68.8	0.0	12.5	18.8	0.0	100%	12.5
Business Education	Adult	0.0	18.8	75.0	6.3	0.0	100%	0.0
Cooperative Vocational Ed. (Agriculture, business & Office, Distributive, Health, home Economics & Industrial Ed.)	Adult	37.5	18.8	25.0	12.5	6.2	100%	0.0
Distributive Education	Adult	56.3	6.3	25.0	12.5	0.0	100%	12.5
Employment Orientation	Adult	50.0	6.3	25.0	12.5	0.0	100%	0.0
Health Occupations Ed.	Adult	56.3	6.3	18.8	12.5	0.0	100%	18.8
Home Economics & Consumer Education	Adult	25.0	18.8	43.8	6.3	0.0	100%	6.3
Industrial Arts	Adult	31.3	6.3	56.3	6.3	0.0	100%	0.0
Intensive Educational Preparation	Adult	37.5	12.5	31.3	12.5	0.0	100%	6.3
Introduction to Vocations	Adult	50.0	6.3	18.8	12.5	0.0	100%	6.3
Technical Education	Adult	37.5	12.5	43.8	6.3	0.0	100%	6.3
Vocational Industrial Ed.	Adult	43.8	12.5	13.3	12.5	0.0	100%	6.3

NOTE: ALL ROW TOTALS MAY NOT ADD TO EXACTLY 100% DUE TO ROUNDING.

TABLES 24 AND 25 WERE DELETED FROM THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED TO THE ERIC DOCUMENT REPRODUCTION SERVICE. THEY WERE NOT REPRODUCIBLE.

BERGEN COUNTY CAREER EDUCATION COORDINATING COUNCIL

304 Valley Boulevard, Wood-Ridge
New Jersey 07075

Phone (201) 935-2990

Date: April 6, 1978

To: Superintendents
Administrative Principals - Directors of Guidance
Principals - Guidance Counselors

From: Dr. Irvin Hochman, Project Director
Survey of Occupational Interests of Bergen County 7th, 8th, 10th and 11th Grade Public, Parochial and Private School Students and Their Parents

Re: New Educational Programs and Career Opportunities

In conjunction with the above survey sponsored by the Bergen County Career Education Coordinating Council which will be conducted in May, 1978, the attached materials "New Educational Programs and Career Opportunities" are enclosed. They were designed to inform your students regarding promising new occupations requiring specialized educational preparation at the postsecondary level.

While the method of making these materials available to your students can best be decided by the individual schools and/or districts, it is hoped that as many students as possible be exposed to their contents.

Some of these programs are presently being offered at Bergen Community College, others will be offered if there is sufficient interest and employment prospects remain promising.

Please do not hesitate to contact Dr. Hochman (447-1500, extension 340) if there are any questions or comments regarding these materials or distribution.

Thank you for your interest and cooperation.

Enclosures

NEW EDUCATIONAL PROGRAMS AND CAREER OPPORTUNITIES

Prepared by:

Dr. Irvin Hochman
Director
Occupational Interest Survey Project
March, 1978

A project funded by the New Jersey Department of Education, Division of Vocational Education. Sponsored by Bergen County Career Education Coordinating Council.

NEW EDUCATIONAL PROGRAMS
AND
CAREER OPPORTUNITIES

What kind of job or career do you want? What kind of jobs and careers will be available when you are ready to go to work?

Many students like yourself have been thinking about their future educational plans and careers. You may be confused, however, by the many of educational programs available that prepare students for jobs. You may also be confused by how many different types of jobs there are. Over 20,000 job titles are listed by the Federal government and new kinds of jobs are opening up every day.

There is no simple or easy way to make a wise career decision. One thing is sure —— the more you know about yourself and the more you know about what is "out there" in the world of work, the greater the probability that you will make a right decision.

Give serious thought to what you value most and hope to get from a job or career. Try to get a clear understanding of how your abilities, skills and life experiences are related to your career interests. Find out as much as you can about all promising occupational areas, and learn what people really do on these jobs. Learn what kind of preparation you need —— whether high school, business/trade/technical school, 2-year college, 4-year college or university, professional or graduate school —— or apprenticeships, on-the-job training, etc.

The following materials briefly describe a number of rather new educational programs and occupations. They offer interesting careers for high school graduates. Many have come into existence in the past ten years. There appear to be job openings, and very importantly, a shortage of trained applicants. Holding down one of these jobs requires considerable skill and technical knowledge.

Some of the educational programs that prepare students for these jobs take two years of college training after high school graduation and graduates are awarded an associate degree. Others take a one year training and graduates receive a certificate, or some other recognized award below the bachelor's degree.

Many of these training programs are currently being offered by Bergen Community College. Others are in the planning stages and may be offered if there is a strong interest.

Look over these materials —— they may point the way to a worthwhile career!

Animal Science Technician

Career Opportunities

The animal science technician assists veterinarians, research scientists, biochemists and other professionals in animal hospitals, veterinary clinics, research laboratories, and other settings.

Educational Preparation

A two year associate degree in animal science is very desirable. In addition to general courses, students take specialized courses such as animal hospital procedures, veterinary clinic practice, animal anatomy, physiology, etc.

Hiring Organizations

Veterinarians, chemical and pharmaceutical organizations, research laboratories, kennels, zoos, animal shelters, and wildlife centers, etc.

Commercial Artist

Career Opportunities

Commercial art work requires skills ranging from highly creative planning, design, and drawing to relatively routine mechanical operations. In contrast with those engaged in "fine art", the work must fit the needs of the client or employer.

Educational Preparation

Artistic ability is an important qualification, but a substantial amount of training in many techniques and technical aspects of the field are required. Completion of a two-year associate degree program in commercial art or attendance at an art school or institute that specialize in commercial and applied art are usually minimal requirements.

Hiring Organizations

Advertising agencies, commercial art studios, printing and publishing companies, television and motion picture studios, department stores and other related organizations.

Dietetic Technician

Career Opportunities

The dietetic technician usually works as an assistant to professional dietitian and is responsible for planning and supervising meals and meal service. The duties may include food production, standard and special diet receipe development, and food services management, etc.

Educational Preparation

A two-year associate degree program is usually required. In addition to general education courses, students receive practical clinical experience in hospitals and other settings and take specialized courses in nutrition, food management and health care systems.

Hiring Organizations

Colleges, universities, industrial food services, school lunch programs, and federal and state programs for the elderly.

Early Childhood Education Assistant

Career Opportunities

Participates in active work and play activities of pre-school children; plans activities, records students' progress, and holds conferences with parents, etc.

Educational Preparation

A two-year degree is usually required for entry into this field. Training consists of general education courses, plus specialized courses in child psychology, music, early childhood education, and supervised practical field work.

Hiring Organizations

Day care centers, pre-school or other child care settings.

Electrical Technology

Career Opportunities

Electrical technicians usually work in the generation and distribution of electrical power or in the manufacture of electrical machinery and equipment. Technicians may assist research engineers in designing motors, generators, appliances, and other products. They may test products for conformity with designs and specifications; inspect finished products, control operations of power stations, etc. The work may overlap with that done by the electronics technician.

Educational Preparation

Electrical technicians may qualify for beginning employment in a trade school, technical institute, or by completing a 2-year associate degree program in a college. At the latter, students take general education courses plus specialized courses dealing with electrical/electronic circuits, electro-mechanical devices, circuit analysis and design, etc.

Hiring Organizations

Electrical equipment and appliance manufacturers, power companies, research laboratories, etc.

Electronics Technology

Career Opportunities

Electronics technicians are employed in research activities as assistance to scientists and engineers in building, testing, even designing of electronic apparatus. In manufacturing operations, they often supervise the production and assembly of electronic equipment. Often they are employed in non routine maintenance and repair jobs. Typical jobs include laboratory technician, electronic tester, electronic inspector, technical representative, etc.

Educational Preparation

A two-year associate degree in electronics technology is highly desirable. In addition to general education courses, students take specialized courses dealing with electronic circuits and measurement, electronic fabrication, network analyses, etc.

Hiring Organizations

Research laboratories, manufacturers, radio/television broadcasters, engineering firms, government agencies, etc.

Fire Science

Career Opportunities

Fire fighters are employed in professional and volunteer positions related to fire protection, prevention, suppression and control.

Educational Preparation

A two year associate degree is very valuable especially for those planning to enter the field of professional fire science. Training is in prevention, investigation and operations relating to modern fire fighting. Students interested in advancement to positions of greater responsibility may transfer to upper division colleges to continue their training.

Hiring Organizations

Local, state and federal fire fighting organizations; insurance underwriting firms.

Hotel-Restaurant Management

Career Opportunities

Hotel-Restaurant Associate Degree Program graduates may start as Assistant Restaurant Managers, Front Office Managers, Assistant Banquet Managers, and Assistant Motel Managers.

Educational Preparation

A two year associate degree is highly desirable for entry to managerial positions in hotel-restuarant industry. Specialized course including, food purchasing, restaurant and dining room operation, menu planning and nutrition and food and beverage control. In addition, students take general education courses.

Operating Room Technician

Career Opportunities

Operating Room Technicians assist physicians and nurses before, during, and after surgery. They help sterilize instruments, position, prepare skin, and drape the patient; pass instruments, operate sterilizers, lights, suction machines and diagnostic equipment, etc.

Educational Preparation

A one year college certificate is usually required for entry into this field. Training consists of a hospital externship, plus specialized courses in operating room principles and procedure.

Hiring Organizations

Hospitals and clinics.

Ornamental Horticulture

Career Opportunities

Ornamental Horticulturists are employed as skilled greens keepers, landscape contractors, nursery workers, and tree specialists. They are also employed in managerial, supervisory and sales positions in florists, garden supply, and other related settings.

Educational Preparation

A two year associate degree is high desirable for entry into ornamental horticulture work. In addition to general education courses, students take specialized courses in plant propagation pest control, soils, fertilizer, plant identification, botany, and business methods, etc.

Hiring Organizations: Types of Employers

Retail florists, landscape contractors, nurseries, leisure resorts, municipal and county shade tree departments.

Legal Assistant

Career Opportunities

The legal assistant assists the attorney in the preparation of documents in organizing the materials essential to the lawyers in making professional decisions, assisting the lawyers in tax return preparations and preparing documents (trusts, wills, etc.) necessary for handling a client's affairs.

Educational Preparation

A one year certificate program which includes specialized courses in law fundamentals, legal practice and procedures, property and commercial transactions, wills and administration, family law and/or related courses.

Hiring Organizations

Lawyers, and related legal agencies.

Renal Technician

Career Opportunities

Renal Technicians prepare the artificial kidney (dialyzer) for patient use, assist the doctor in setting up treatment, and monitor equipment during treatment. They serve as part of the health team that deals with kidney disorders.

Educational Preparation

A one year college level certificate program is available for entry postions into this area. Training consists of hospital externship plus general education and specialized courses.

Hiring Organizations

Hospitals and clinics.

Transportation and Traffic Management

Career Opportunities

A traffic/transportation specialist decides how goods and products will move to their destinations —— what kind of carrier, the routes, and rates. Typical positions include claims, rate, shipping routing clerks, industrial traffic specialists, traffic sales representative, and related supervisory and managerial positions.

Educational Preparation

A two-year associate degree in transportation/traffic is a desirable preparation for entry positions. In addition to general education courses, students take specialized courses in governmental regulations, freight classifications, carrier rates, commodity rates, routing, document preparation, claims, and other technical areas.

Hiring Organizations

Industries, corporations, transportation companies, governmental offices, and military, etc.

Travel Service

Career Opportunities

Travel agents and representatives assist tourists and other travellers make arrangements for airlines, steamships, rails, and auto travel, reserve hotels/motels, advise regarding passport, visa, and tour booking arrangements, and generally assist in travel and vacation planning, etc. Experienced agents may hold managerial or proprietor positions in agencies.

Educational Preparation

A one year college certificate course is considered very desirable —— one that combines general education courses with specialized courses in the field of travel.

Hiring Organizations

Travel agencies, airlines, hotels, leisure resorts, etc.

Word Processing (Correspondence and Administrative Secretaries)

Career Opportunities

"Word processing" generally describes the large volumes of spoken or written words with the help of automated office machines ——— such as computerized or magnetic card typewriters. An "administrative secretary" can perform the work of an executive secretary but must also have the skills to operate and coordinate an automated business office. A "correspondence secretary" is basically an operator of these automated office machines.

Education Preparation

A one-year college level certificate program designed to improve general typing skills and to learn the specialized skills needed for word processing correspondence secretary is recommended. A two-year associate degree executive secretarial program with word processing specialization prepares students for administrative secretarial work is recommended.

Hiring Organizations

Business, industry, governmental offices, etc.

BERGEN COUNTY CAREER EDUCATION COORDINATING COUNCIL

304 Valley Boulevard, Wood-Ridge
New Jersey 07075
Phone (201) 935-2990

SURVEY OF EDUCATIONAL PLANS AND OCCUPATIONAL INTERESTS OF BERGEN COUNTY PUBLIC, PAROCHIAL, AND PRIVATE SCHOOLS SEVENTH, EIGHTH, TENTH AND ELEVENTH GRADE STUDENTS AND THEIR PARENTS (OR GUARDIANS)

A survey funded by the New Jersey Department of Education, Division of Vocational Education, and sponsored by the Bergen County Career Education Coordinating Council.

OBJECTIVES OF THE BERGEN COUNTY CAREER EDUCATION COORDINATING COUNCIL

"The accepted purpose of this Council shall be to continuously review the occupational programs in education being offered in the County ... the local occupational needs in terms of additional programs considered necessary ... provide a total coordinated plan for vocational-technical education on the immediate and long range basis."

COUNCIL MEMBERSHIP

Bergen County Superintendent of Schools
Bergen County Superintendent of Vocational-Technical Schools
Bergen County Coordinator of Vocational-Technical Schools (Executive Director)
Bergen County Child Study Supervisor
Representatives of:
Bergen County Community Action Program, Inc.
Bergen County Community, Adult and Continuing Education Association
Bergen County Elementary School Principals Association
Bergen County Guidance Association
Bergen County Non-profit Private Schools
Bergen County Secondary School Principals Association
Bergen County School Boards Association
Bergen County Superintendents Association
Bergen Community College
New Jersey State Training and Employment Service

DIRECTIONS FOR ADMINISTERING THE SURVEY

1. Please familiarize yourself with the survey form (25 to a packet) before distributing. This will enable you to anticipate any questions.

2. Each survey form contains student questionnaire (pages 2-3) and a parent questionnaire (pages 4-5). The former will be completed in class; the latter will be completed by the students' parents and/or guardians at home. About 25 minutes of class time will be required. There is also a separate parent "Request for Further Information" postcard.

3. Distribute to all students (grades 7, 8, 10, 11) in their regular classes. If feasible, have absentees complete the survey at a later date.

(over)

4. Urge students to read page 2 of the survey form carefully before they complete their questionnaires.

5. Have students detach their completed questionnaires; collect these single sheets, and return to your school's designated administrative office. Also return any unused forms in a separate pile.

6. Request students to take home the remainder of the survey form and the separate postcard to their parents.

7. Establish a deadline of two days for students to return the completed parents' questionnaires (single sheets) to your school.

8. The rest of the survey form (pages 1, 6, 7) can be retained by the parents and/or students for reference. Parents interested in additional information can also complete and mail the postcards on their own.

9. Bring all completed parent questionnaires (single sheets) to your school's designated administrative offices. Keep separate from completed students' questionnaires.

10. All phases of this survey should be completed within two weeks of the receipt of the questionnaire forms.

11. Completed and separated student and parent questionnaire sheets and unused questionnaires will be picked up the following week. Please have them ready.

12. The results of the survey will be made available for use by your school and/or district.

13. Please phone Dr. Irvin Hochman, Project Director, Bergen Community College, if there are any questions or if additional forms are needed (447-1500 ext.340).

Thank you very much for your cooperation.

Bergen County
Career Education Coordinating Council

Occupational Interest Survey

Your Career Interest and Plans

Bergen County Student and Parent Occupational Interest Survey

Purpose of the Survey:

This survey is designed to learn about your educational and career interests and to inform you about educational and career training opportunities. This information is needed for planning and coordinating educational courses, programs, space, facilities, and equipment to meet the needs of the people of Bergen County.

Among the educational institutions providing career-training in Bergen County are:

1. Bergen County Vocational Technical High School

Bergen Tech offers a complete high school program, including extracurricular activities for full-time students. One-half of every school day is devoted to shop instruction and half to classroom subjects. Students graduating from Bergen Tech receive a state approved high school diploma. In addition trade certificates are awarded. Some examples of the programs offered are air conditioning, auto mechanics, beauty culture, carpentry, commercial baking, dental assisting, drafting, electrical/electronics, masonry, printing, etc.

Adults may also take a variety of vocational-technical courses, including apprenticeship training programs in the evening.

2. Bergen County Satellite (Shared Time) Vocational Centers

The satellite centers are vocational training centers for students grades 10 to 12 presently attending public and private high schools. The centers house shops and laboratories where students receive instruction in various occupational areas. Regular academic courses and activities are taken at the students' home high schools. Although students attend satellite centers on a half-time basis, they graduate and receive diplomas from their own high schools. Examples of programs offered are: auto mechanics, beauty culture, commercial art, data processing, diesel mechanics, electrical/electronics, medical office-nursing assistant, and small engine service, etc.

3. Bergen Community College

Bergen Community College, a comprehensive two-year county college, offers day, evening, and summer programs designed to meet the needs and interests of students and the community. The College offers liberal arts associate degree programs for students planning to transfer to four-year colleges. Also offered are degree career programs such as business computer programming, chemical technology, dental hygiene, early childhood education, fire science, hotel-restaurant management, laboratory technology, medical laboratory technician, medical office assistant, nursing, ornamental horticulture, police science, radiologic technology, respiratory therapy, retail business management, and executive secretarial. Certificate career progrms (1 year) are also available. These degree and certificate career programs prepare students for immediate employment or possible transfer. The College also offers varied community services programs.

Other programs will be planned in line with the interests you express in this survey.

4. Adult Community Continuing Education Schools

Local community schools offer adults a variety of programs in the arts, adult basic education, business, high school equivalency, home, languages, leisure activities, music, and technology. The majority of the schools are non-profit and are sponsored by the local Board of Education with nominal tuition fees. Classes are offered both days and evenings in many school districts.

___	___	___	___	___	___						
1	2	3	4	5	6						
0	3	___	___	___	___	___	___	___	___	___	___
69	70	71	72	73	74	75	76	77	78	79	80

Please do not write in this space.

PLEASE DO NOT WRITE IN THIS COLUMN

Bergen County Student Occupational Interest Survey

(Please read opposite page carefully before completing this questionnaire)

Student's Name ____________________
Last First Initial

School ____________________

Please check your answers below:

1. **Age** **At last birthday**
-7
A ___ 12 years
B ___ 13 years
C ___ 14 years
D ___ 15 years
E ___ 16 years
F ___ 17 years
G ___ 18 years and over

2. **Sex**
-8
A ___ Male
B ___ Female

3. **Present Grade**
-9
A ___ 7th grade
B ___ 8th grade
C ___ 10th grade
D ___ 11th grade

Please check either Yes, No, or Not Sure. Answer each question below.

	Yes A	**No** B	**Not Sure** C	
4. Are you presently enrolled in a Satellite (shared time) Vocational Center?	___	___	___	-10
5. If not presently enrolled in a Satellite Vocational Center program, would you be interested in enrolling?	___	___	___	-11
6. Do you plan to graduate from high school?	___	___	___	-12
7. Do you plan to work on a part-time basis when you leave high school?	___	___	___	-13
8. Do you plan to work on a full-time basis when you leave high school?	___	___	___	-14
9. Are you interested in continuing your education after high school?	___	___	___	-15

How helpful has your school been in informing you about the following:

	Very Helpful A	**Helpful** B	**Slightly Helpful** C	**Not Helpful** D	
10. The many new career opportunities created by modern technology and the increase of man's knowledge (for example, environmental, computer, or electronic technologies)	___	___	___	___	-16
11. The vocational and technical programs offered by Bergen County schools and colleges	___	___	___	___	-17
12. The attitudes and work habits you need for obtaining and holding a job	___	___	___	___	-18

Would you be interested in enrolling in a day or evening program after high school graduation at any of the following institutions? Please check EACH question below. Check either Yes, No, or Not Sure.

	Yes A	No B	Not Sure C	**PLEASE DO NOT WRITE IN THIS COLUMN**
13. At Bergen County Vocational-Technical Adult Schools?				-19
*14. At Bergen Community College, Liberal Arts and Sciences Transfer Program?				-20
15. At Bergen Community College, Career Vocational Program				-21
16. At another 2-year College-Transfer Program?				-22
17. At another 2-year College-Career Vocational Program?				-23
18. At a 4-year college/university?				-24
19. At an Adult Community Continuing Education School?				-25
20. At a Private Business/Technical School?				-26

Did you check "Yes" to either question 14, 16, or 18 above?

If so, in what major fields or subjects are you presently interested? Examine the list on page 6 and then write their codes below. If you are not interested in any, just write Code "A" in questions 21 and 22 below and continue reading.

21. First Choice ____________ Code -27

22. Second Choice ____________ Code -28

Would you be interested in special courses or a program that would prepare you for an occupation? Those completing the program receive an associate degree or certificate. Please examine the list on page 7, select your first and second choices, and write their codes below.

23. First Choice ____________ Code (29 - 31)

24. Second Choice ____________ Code (32 - 34)

25. Are there some programs in which you are interested which are not covered in the lists? Please write their names below.

____

____

Thank you for your cooperation in this survey.

Bergen County Career Education
Coordinating Council

**Bergen Community College Liberal Arts and Sciences Transfer Programs:*
Programs which award associate degrees and/or credits which are normally accepted at 4-year colleges towards a bachelor's degree.

PLEASE DO NOT WRITE IN THIS COLUMN

___	___	___	___	___	___
1	2	3	4	5	6

0	3	___	___	___	___	___	___	___	___	___	___
69	70	71	72	73	74	75	76	77	78	79	80

Please do not write in this space

PLEASE DO NOT WRITE IN THIS COLUMN

SURVEY OF THE OCCUPATIONAL INTERESTS OF PARENTS AND GUARDIANS OF STUDENTS ATTENDING BERGEN COUNTY SCHOOLS

(Please complete only ONE questionnaire per family)

Are you or have you been enrolled in an occupational training program?
Please check "Yes" or "No" for each of the following schools.

	Father or Male Guardian			**Mother or Female Guardian**		
	A Yes	B No		A Yes	B No	
1 - 7	___	___	High School Vocational Program	___	___	9 -15
2 - 8	___	___	Public Vocational-Technical High School	___	___	10 -16
3 - 9	___	___	Adult Community Continuing Education School	___	___	11 -17
4 -10	___	___	Private Business/Technical/Vocational School	___	___	12 -18
5 -11	___	___	Junior College (Community or Private)	___	___	13 -19
6 -12	___	___	Four Year College	___	___	14 -20
7 -13	___	___	Graduate School	___	___	15 -21
8 -14	___	___	Other (Military, Apprentice Training, etc.)	___	___	16 -22

Would you be interested in enrolling in some type of degree program or in taking courses at either a 2-year college (associate degree) or at a four year college/university (bachelor's degree).

	Father or Male Guardian	**Mother or Female Guardian**	
17 -23	A _____ Yes B _____ No	A _____ Yes B _____ No	20 -26

Did you check "Yes" to either question #17 or #18 above? If so, in which major subject area are you presently interested? Check the list on Page 6 and then write their codes below. If you are not interested, just write "A" in question 18 or 21 below.

	Father or Male Guardian	**Mother or Female Guardian**	
18 -24	First Choice ___________ Code	First Choice ___________ Code	21 -27
19 -25	Second Choice ___________ Code	Second Choice ___________ Code	22 -28

PLEASE DO NOT WRITE IN THIS COLUMN

Are you interested in preparing for a new occupation or upgrading in your present job? There are many educational programs presently being planned or offered that award associate degrees or certificates, or you can take specialized courses. Please look at the list on page 7 and write below the code numbers of the ***ones*** *in which you might be interested in enrolling. If you are not interested, just write code #097 in question 23 or 25.*

PLEASE DO NOT WRITE IN THIS COLUMN

	Father or Male Guardian	**Mother or Female Guardian**	
23 (29-*31*)	First Choice ________ Code	First Choice ________ Code	**25** (35-*37*)
24 (32-*34*)	Second Choice ________ Code	Second Choice ________ Code	**26** (38-*40*)

If you indicated an interest in an educational program or courses, where would you like to enroll? Please check your choice below:

	Father or Male Guardian		**Mother or Female Guardian**	
27 -*41*	A___	Bergen County Vocational-Technical Adult School (Even'gs)	___A	**35** -*49*
28 -*42*	A___	Adult Community Continuing Education School	___A	**36** -*50*
29 -*43*	*A___	Bergen Community College (Liberal Arts Transfer Program)	___A	**37** -*51*
30 -*44*	A___	Bergen Community College (Career Vocational Program)	___A	**38** -*52*
31 -*45*	A___	Some Other 2-year College	___A	**39** -*53*
32 -*46*	A___	Four Year College/University	___A	**40** -*54*
33 -*47*	A___	Private Business/Technical Vocational School	___A	**41** -*55*
34 -*48*	A___	Some other School	___A	**42** -*56*

If none of the programs mentioned are of interest to you, please tell us what your interests are:

____

____

Does your family have any special education needs for which you would like to see new, changed, or expanded programs offered? Please describe.

____

____

____

Please have your child return this completed questionnaire sheet to his or her school promptly. Thank you for your cooperation.

Bergen County Career Education
Coordinating Council

**Bergen Community College Liberal Arts and Sciences Transfer Programs: Programs which award associate degrees and/or credits which are normally accepted at 4-year colleges towards a bachelor's degree.*

Majors Offered by 2-Year and 4-Year Colleges

(These are usually referred to as liberal arts and sciences programs)

	CODE
Not interested in enrolling	A
Agriculture and Natural Resources	B
Architecture and Environmental Design and Planning	C
Area Studies (Asian, African, etc.)	D
Biological Sciences	E
Business and Management	F
Communications (Journalism, Advertising, Radio/TV, etc.)	G
Computer and Information Sciences	H
Education	I
Engineering	J
Fine and Applied Arts	K
Foreign Languages	L
Health and Medical Professions	M
Home Economics	N
Law	O
Letters (English, Literature, Writing, Philosophy)	P
Library Science	Q
Mathematics	R
Military Sciences	S
Physical Sciences (Physics, Chemistry, Geology, etc.)	T
Psychology	U
Public Service and Affairs (including Social Work, Law Enforcement and Corrections, etc.)	V
Social Sciences (Sociology, Political Science, Economics, etc.)	W
Theology (Religion)	X
Interdisciplinary Studies	Y
Not sure of major	Z

ATTENTION: **Parents and Guardians**

If you are interested in learning more about certain educational programs, please complete and mail the prepaid post card that accompanies this questionnaire.

Vocational/Technical Programs and Courses
Leading to Associate Degrees, Certificates and Other Awards

Business and Commerce Technologies

Accounting & Bookkeeping	001*
Banking & Finance	002
Business Management	003*
Beauty Culture & Cosmetology	004*
Business Administration	005*
Communication & Broadcasting	006
Commercial Cooking & Baking	007
Court Reporting — 1 Year	008
Export & Import Marketing Tech	009
Food Distribution—Super Market Mngmt	010
Graphic Arts & Printing	011*
Hotel-Motel & Restaurant Mngmt	012*
Labor & Industrial Relations	013
Pilot Training	014
Real Estate & Insurance	015
Secretarial Science	016*
Small Business Mngmt	017
Traffic-Transportation Technology	018

Data Processing Technologies

Business Computer Programming	019
Data Processing Technology	020*
Key Punch Operator	021*

Applied Arts

Commercial Art	022*
Interior Design	023
Photography	024*
Theatre Art	025*

Health Services and Paramedical Technologies

Animal Science Technician	026
Biomedical Electronics	027
Dietetic Assistant	028
Dental Assistant	029*
Dental Hygiene	030*
Dental Laboratory Technology	031
Medical Assistant	032*
Medical Laboratory Technology	033*
Medical Record Librarian	034
Mental Health Aide	035
Mortuary Science	036
Nursing, Practical	037*
Nursing, R.N.	038*
Nursing Home & Institut'l Administration	039
Occupational Therapy Assistant	040
Optical Technology	041
Physical Therapy Assistant	042
Radiological Technology	043*
Respiratory Therapy Assistant	044*
Rehabilitation Assistant	045
Speech Pathology	046

Mechanical and Engineering Technologies

Aircraft Maintenance & Technology	047
Architectural Building Technology	048
Auto Body Repair	049*
Auto & Diesel Mechanics	050*
Carpentry	051*
Chemical Technology	052*
Construction-Civil Technology	053
Drafting and Design Technology	054*
Electricity, Industrial	055*
Electronics Technology	056*
Heating and Air Conditioning and Refrigeration	057*
Instrumentation Technology	058
Machine Shop	059*
Masonry	060*
Mechanical Technology	061
Metals Technology	062
Nuclear Technology	063
Plastics Technology	064
Quality Control	065
Sheet Metal Work	066*
Stationary Engineering	067*
Upholstery Technology	068*
Welding Technology	069*

Natural Science Technologies (Agriculture, Food Services, Sanitation, etc.)

Biological Technology	070*
Environmental Health Technology	071
Forest Technology	072
Horticulture and Landscaping	073*
Pollution Control	074
Sanitation Technician	075

Public Service and Related Technologies

Child Care-Pre-Elementary Education	076*
Community Planning	077
Fire-Fighting & Safety Technology	078*
Library Science	079
Penal and Correctional Technology	080
Police Science (Law Enforcement)	081*
Recreation Program Leadership	082
Social Work Assistant	083
Teacher's Aide	084
Vocational Teacher Training	085
Urban Planning	086
Other	087
NONE OF THE ABOVE	097

***Currently offered in at least one of the following Bergen County schools**

a — Bergen County Vocational-Technical Adult Schools
b — Adult Community Continuing Education School
c — Bergen Community College

Many other programs will be planned according to your interests.

BERGEN COUNTY CAREER EDUCATION COORDINATING COUNCIL

304 Valley Boulevard, Wood-Ridge
New Jersey 07075

Phone (201) 935-2990

TO: All Superintendents and Administrative Principals

FROM: Bergen County Career Education Coordinating Council

SUBJECT: Survey of Bergen County Chief School Administrators' Perceptions of the Status and Priorities of Career/Vocational Programs and Services In Their Districts

The New Jersey Department of Education, Division of Vocational Education has delegated to the Council the responsibilities for continuously reviewing vocational-technical education programs and services in the County, determining needs for additional programs, developing immediate and long range plans, and recommending priorities for the allocation of funds available from various State and Federal sources.

In order to assist the Council to carry out these mandated responsibilities effectively and to help Bergen County schools secure their fullest possible share of funds, you are requested to provide it with information regarding the status of your district's career/vocational programs & services.

In order to facilitate the systematic gathering of information, the enclosed questionnaire has been designed. For its conceptual framework, the "Career Development Model - A Flexible Continuum of Vocational - Technical Programs and Services" prepared by New Jersey Department of Education, Division of Vocational Education has been adopted. A copy of the latter model is enclosed for your reference.

BERGEN COUNTY CAREER EDUCATION COORDINATING COUNCIL

304 Valley Boulevard, Wood-Ridge
New Jersey 07075
Phone (201) 935-2990

No information that you provide will be individually identified by district in any published reports. The confidential information and data provided by all chief school administrators will be grouped and integrated with 1) the results of the recently conducted county-wide survey of the occupational interests of Bergen County public and non-public school 7th, 8th, 10th and 11th grade students and their parents and 2) related employment supply and demand studies. A copy of the final report will be made available to all districts.

It is most important that your completed questionnaire be returned by June 23, 1978. A self-addressed envelope is enclosed.

Please do not hesitate to contact Dr. Irvin Hochman, Project Director, 447-1500, ext. 340 if you have any questions about any portion of the questionnaire.

Your cooperation is most appreciated.

Sincerely,
Eli A. Kane
Eli A. Kane
Council Chairman

COUNCIL MEMBERSHIP

Bergen County Superintendent of Schools
Bergen County Superintendent of Vocational-Technical Schools
Bergen County Career Education Coordinator (Executive Secretary)
Bergen County Child Study Supervisor
Representatives of:
Bergen County Community Action Program, Inc.
Bergen County Community, Adult and Continuing Education Association
Bergen County Elementary School Principals Association
Bergen County Guidance Association
Bergen County Non-profit Private Schools
Bergen County Secondary School Principals Association
Bergen County School Boards Association
Bergen County Superintendents Association
Bergen Community College
New Jersey State Training and Employment Service

___ ___ ___ ___ ___ ___
1 2 3 4 5 6

SURVEY OF BERGEN COUNTY CHIEF SCHOOL ADMINISTRATORS' PERCEPTIONS OF THE STATUS AND PRIORITIES OF CAREER/VOCATIONAL PROGRAMS AND SERVICES IN THEIR DISTRICTS

NAME OF DISTRICT:____

NAME OF CHIEF SCHOOL ADMINISTRATOR:____________________________

To assist in the analysis of data received, please supply the following descriptive information:

TYPE OF DISTRICT

Please check all types of schools found in your district.

1. (a 7) A_____ Elementary
2. (a 8) A_____ Middle or Junior High
3. (a 9) A_____ High School
4. (a 10) A_____ Adult Community Continuing Education School

Please supply the grade range in District Schools (out of a possible range of K to adult).

5. (a 11) FROM_____ TO_____
6. Total student enrollment in your district, as of September 1977

(a 12) A_____ Less than 500 pupils
B_____ 500 - 999
C_____ 1,000 - 1,999
D_____ 2,000 - 2,999
E_____ 3,000 - 3,999
F_____ 4,000 - 4,999
G_____ 5,000 - 5,999
H_____ 6,000 or more

7. Average Annual Cost Per Pupil During the 1976-77 School Year

(a 13) A_____Less than $1,300
B_____$1,300 - $1,599
C_____$1,600 - $1,899
D_____ $1,900 - $2,199
E_____ $2,200 - or more (how much?)
(_________)

CHIEF SCHOOL ADMINISTRATOR'S RATINGS OF THE STATUS OF MAJOR CAREER/VOCATIONAL PROGRAMS AND SERVICES AVAILABLE TO DISTRICT STUDENTS WITHIN THE DISTRICT OR AT SATELLITE VOCATIONAL CENTERS, BERGEN VOCATIONAL TECHNICAL HIGH SCHOOL/ADULT SCHOOL,ETC.

Note: The rating you give to each of the following items will reflect your balanced perception of the goals and objectives, the availability of personnel, space, facilities, and financial recources, and the general effectiveness of your career/vocational programs and services. Please be sure to answer each of the following items:

	PROGRAMS & SERVICES WITHIN DISTRICT OR AVAILABLE AT OTHER FACILITIES	GRADE RANGE	NOT PRESENTLY AVAILABLE TO OUR STUDENTS	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTATIONS	NOT APPLICABLE TO THIS DISTRICT'S GRADE RANGE	NO BASIS FOR AN OPINION	Additional Technical Assistance From N.J. Dept. of Education Would be Desirable (check each item either A or B)	
	PRE-SCHOOL ELEMENTARY SCHOOLS							YES	NO
8(a14)	Home Economics/Consumer Education	(K-6)	A____	B____	C____	D____	E____	A____	B____ 9(a15)
10(a16)	Industrial Arts	(K-6)	A____	B____	C____	D____	E____	A____	B____11(a17)
12(a18)	Career Awareness (All curriculum areas)	(5-6)	A____	B____	C____	D____	E____	A____	B____13(a19)
14(a20)	Technology for Children	(K-6)	A____	B____	C____	D____	E____	A____	B____15(a21)
	MIDDLE AND/OR JUNIOR HIGH SCHOOL								
16(a22)	Agriculture/Agribusiness/Natural Resources Education	Grade 9	A____	B____	C____	D____	E____	A____	B____17(a23)
18(a24)	Business Education	7 - 9	A____	B____	C____	D____	E____	A____	B____19(a25)
20(a26)	Health Occupations Orientation	7 - 9	A____	B____	C____	D____	E____	A____	B____21(a27)
22(a28)	Home Economics and Consumer Education	6 - 9	A____	B____	C____	D____	E____	A____	B____23(a29)
24(a30)	Industrial Arts	6 - 9	A____	B____	C____	D____	E____	A____	B____25(a31)
26(a32)	Introduction to Vocations	6 - 9	A____	B____	C____	D____	E____	A____	B____27(a33)
28(a34)	Career Awareness (all curriculum areas)	7 - 9	A____	B____	C____	D____	E____	A____	B____29(a35)
30(a36)	Consumer Education	6 - 9	A____	B____	C____	D____	E____	A____	B____31(a37)

CAREER/VOCATIONAL PROGRAMS AVAILABLE TO DISTRICT STUDENTS WITHIN DISTRICT OR AT OTHER FACILITIES

	PROGRAMS & SERVICES	POSSIBLE GRADE RANGE	NOT PRESENTLY AVAILABLE TO OUR STUDENTS	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTATIONS	NOT APPLICABLE TO THIS DISTRICT'S GRADE RANGE	NO BASIS FOR AN OPINION	Additional Technical Assistance From N. J. Dept. of Education Would be Desirable (check each item either A or B)	
	HIGH SCHOOLS							YES	NO
32(a38)	Agriculture/Agribusiness/Natural Resources Education	9 - 12	A____	B____	C____	D____	E____	A____	B____33(a39)
34(a40)	Business Education	9 - 12	A____	B____	C____	D____	E____	A____	B____35(a41)
36(a42)	Cooperative Vocational Education (Agriculture, Business & Office, Distributive, Health, Home Economics & Industrial Education)	9 - 12	A____	B____	C____	D____	E____	A____	B____37(a43)
38(a44)	Distributive Education	10 - 12	A____	B____	C____	D____	E____	A____	B____39(a45)
40(a46)	Employment Orientation	9 - 12	A____	B____	C____	D____	E____	A____	B____41(a47)
42(a48)	Health Occupations Education	9 - 12	A____	B____	C____	D____	E____	A____	B____43(a49)
44(a50)	Health Occupations Orientation	9 - 12	A____	B____	C____	D____	E____	A____	B____45(a51)
46(a52)	Home Economics & Consumer Education	9 - 12	A____	B____	C____	D____	E____	A____	B____47(a53)
48(a54)	Industrial Arts	9 - 12	A____	B____	C____	D____	E____	A____	B____49(a55)
50(a56)	Intensive Educational Preparation	12	A____	B____	C____	D____	E____	A____	B____51(a57)
52(a58)	Intensive Occupational Preparation	9 - 12	A____	B____	C____	D____	E____	A____	B____53(a59)
54(a60)	Introduction to Vocations	9 - 10	A____	B____	C____	D____	E____	A____	B____55(a61)
56(a62)	Technical Education	11 - 12	A____	B____	C____	D____	E____	A____	B____57(a63)
58(a64)	Vocational Industrial Education	9 - 12	A____	B____	C____	D____	E____	A____	B____59(a65)
60(a66)	Career Awareness (all curriculum areas)	9 - 12	A____	B____	C____	D____	E____	A____	B____61(a67)
62(a68)	Consumer Education	9 - 12	A____	B____	C____	D____	E____	A____	B____63(a69)

CAREER/VOCATIONAL PROGRAMS AVAILABLE TO DISTRICT STUDENTS WITHIN DISTRICT OR AT OTHER FACILITIES

	PROGRAMS & SERVICES	POSSIBLE GRADE RANGE	NOT PRESENTLY AVAILABLE TO OUR STUDENTS	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTATIONS	NOT APPLICABLE TO THIS DISTRICT'S GRADE RANGE	NO BASIS FOR AN OPINION	Additional Technical Assistance From N.J. Dept. of Education Would be Desirable (check each item either A or B)	
	ADULT COMMUNITY CONTINUING EDUCATION SCHOOLS							YES	NO
64(a70)	Agriculture/Agribusiness Natural Resources Education	Adult	A____	B____	C____	D____	E____	A____	B____65(a71)
66(a72)	Business Education	Adult	A____	B____	C____	D____	E____	A____	B____67(a73)
68(a74)	Cooperative Vocational Education (Agriculture,Business & Office, Distributive, Health, Home Economics & Industrial Education)	Adult	A____	B____	C____	D____	E____	A____	B____69(a75)
70(a76)	Distributive Education	Adult	A____	B____	C____	D____	E____	A____	B____71(a77)
72(a78)	Employment Orientation	Adult	A____	B____	C____	D____	E____	A____	B____73(a79)
74(a80)	Health Occupations Education	Adult	A____	B____	C____	D____	E____	A____	B____75(b 7)
76(b 8)	Home Economics & Consumer Education	Adult	A____	B____	C____	D____	E____	A____	B____77(b 9)
78(b10)	Industrial Arts	Adult	A____	B____	C____	D____	E____	A____	B____79(b11)
80(b12)	Intensive Educational Preparation	Adult	A____	B____	C____	D____	E____	A____	B____81(b13)
82(b14)	Introduction to Vocations	Adult	A____	B____	C____	D____	E____	A____	B____83(b15)
84(b16)	Technical Education	Adult	A____	B____	C____	D____	E____	A____	B____85(b17)
86(b18)	Vocational Industrial Education	Adult	A____	B____	C____	D____	E____	A____	B____87(b19)

CAREER/VOCATIONAL PROGRAMS AVAILABLE TO DISTRICT STUDENTS WITHIN DISTRICT OR AT OTHER FACILITIES

	PROGRAMS & SERVICES	POSSIBLE GRADE RANGE	NOT PRESENTLY AVAILABLE TO OUR STUDENTS	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTATIONS	NOT APPLICABLE TO THIS DISTRICT	NO BASIS FOR AN OPINION	Additional Technical Assistance From N.J. Dept. of Education Would be desirable (check each item either A or B)	
	SERVICES OFFERED IN ELEMENTARY, MIDDLE JR. HIGH, HIGH SCHOOLS & ADULT SCHOOLS							YES	NO
88(b20)	Career Exploration Clubs	K - 12	A____	B____	C____	D____	E____	A___	B___89(b21)
90(b22)	Career Guidance	K - 12	A____	B____	C____	D____	E____	A___	B___91(b23)
92(b24)	Career Resource Center	K - 12	A____	B____	C____	D____	E____	A___	B___93(b25)
94(b26)	Job Placement	9 - 12 16 yrs & above	A____	B____	C____	D____	E____	A___	B___95(b27)
96(b28)	Special Services for Special Needs Students	6 -adult	A____	B____	C____	D____	E____	A___	B___97(b29)
98(b30)	Youth Leadership Development	6 -adult	A____	B____	C____	D____	E____	A___	B___99(b31)
	SPECIAL NEEDS VOCATIONAL/CAREER EDUCATION PROGRAMS FOR THE HANDICAPPED								
100(b32)	ALL PROGRAMS AND SERVICES LISTED IN MODEL	Ages 5 - 20	A____	B____	C____	D____	E____	A___	B___101(b33)
	SPECIAL NEEDS VOCATIONAL/CAREER EDUCATION PROGRAMS FOR THE DISADVANTAGED								
102(b34)	ALL PROGRAMS AND SERVICES LISTED IN MODEL	Grades 6 - 12 Ages 14 -20	A____	B____	C____	D____	E____	A___	B___103(b35)

What are the major reasons why you checked that certain career/vocational services are "not presently available to district students" or "below district expectations"? Please check all of the following that apply:

104(b36) A___ question is not applicable to this district
105(b37) A___ low priority in the district
106(b38) A___ lack of funds to employ qualified personnel
107(b39) A___ lack of funds for equipment
108(b40) A___ lack of suitable space
109(b41) A___ unable to integrate with other curricular requirements & activities
110(b42) A___ more technical assistance needed from N. J. Dept. of Education
111(b43) A___ Other (What?________________________)

Please feel free to elaborate on any answers you checked above:

____
____
____
____
____

During the past three school years (1975-1978)what career/vocational technical programs or services have been implemented in your district? (Do not include those programs implemented at satellite vocational centers or Bergen County Technical High School).

____
____
____
____

What new career/vocational programs or services are you seriously planning for possible implementation in your district in the next three years?

____
____
____
____

What new career/vocational programs or services do you believe should have high priority for implementation in the following settings. Please be as specific as possible.

1) Shared District Programs & Services (two or more districts)

____________________ ____________________
____________________ ____________________
____________________ ____________________

2) Satellite Vocational Centers

____________________ ____________________
____________________ ____________________
____________________ ____________________

3) Bergen County Vocational-Technical High School

____________________ ____________________
____________________ ____________________
____________________ ____________________

4) Adult Community Continuing Education Schools

____________________ ____________________
____________________ ____________________
____________________ ____________________

5) Bergen Community College

____________________ ____________________
____________________ ____________________
____________________ ____________________

6) Other Settings (please designate)

____________________ ____________________
____________________ ____________________
____________________ ____________________

SUPERINTENDENT'S PERCEPTION OF THE STATUS OF THEIR DISTRICTS CAREER/VOCATIONAL PROGRAMS & SERVICES

Note: Your ratings below relate only to career/vocational programs & services available to your district's students

	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTIONS	NOT APPLICABLE TO THIS DISTRICT'S GRADE RANGE	NO BASIS FOR AN OPINION	
GOALS & OBJECTIVES & PLANNING					
Goals & objectives: clearly stated in writing & consistently used as a basis for planning	A____	B____	C____	D____	112(b44)
Administrators',counselors' & instructional staffs' awareness of goals & objectives	A____	B____	C____	D____	113(b45)
Availability of information & data on labor market needs, supply & demand, job trends, etc.	A____	B____	C____	D____	114(b46)
Availability & use of student follow-up information, on job placements and job performance for evaluating effectiveness of programs & services	A____	B____	C____	D____	115(b47)
PROCESS					
Articulation with other districts, county wide vocational schools, colleges, other post secondary schools etc.	A____	B____	C____	D____	116(b48)
Provisions for work experience for students, coordination of classroom instruction & work experience	A____	B____	C____	D____	117(b49)
Availability & adequacy of personnel to provide occupational counseling & guidance to students	A____	B____	C____	D____	118(b50)
Effectiveness of system for locating & placing students in jobs in fields related to their preparation	A____	B____	C____	D____	119(b51)
Effectiveness of efforts to attract students who might benefit from a career/vocational education	A____	B____	C____	D____	120(b52)
RESOURCES					
Availability of sufficient instructional personnel for optimum program effectiveness	A____	B____	C____	D____	121(b53)
Availability of continuing in service education oppertunities for teachers & guidance personnel	A____	B____	C____	D____	122(b54)
Availability of sufficient and functioning instructional equipment	A____	B____	C____	D____	123(b55)
Availability of functional and flexible instructional facilities (excluding equipment)	A____	B____	C____	D____	124(b56)
Availability of sufficient, relevant and current instructional materials(textbooks audiovisual media, etc).	A____	B____	C____	D____	125(b57)
Use of community as an education resource	A____	B____	C____	D____	126(b58)

	BELOW DISTRICT EXPECTATIONS	MEETING DISTRICT EXPECTATIONS	NOT APPLICABLE TO THIS DISTRICT'S GRADE RANGE	NO BASIS FOR AN OPINION	
Adequacy of funds allocated for career/vocational education in district operating budget for achievement of approved objectives	A____	B____	C____	D____	127(b59)
Adequacy of funds allocated in capital outlay budget for new career/vocational education facilities, equipment, replacement, repair & renovation	A____	B____	C____	D____	128(b60)

Please feel free to comment on any of your above ratings:

____

____

____

Thank you for your cooperation.

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